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ABSTRACT

Phase II of a three-phase study developed a statewide overview of compensatory education in Texas and examined instructional practices and other variables related to a broad definition of student success. Questionnaires (developed in Phase I) received from 3,235 campuses (a 55% return) collected descriptive information on compensatory programs and performance data on selected students. Major findings were: (1) various estimates of total students served ranged from 650,000 to over 1 million; (2) eligibility for free/reduced price lunch is only marginally related to inclusion in a compensatory program and is not related to success; (3) exit rates are almost constant at 30% per year, but with no concomitant decline in number of students served, suggesting that selection measures and exit standards need reconsideration; (4) the overall impact of compensatory programs as measured by changes in test score distributions is positive but quite small; (5) compensatory students are retained at a higher rate than other students, suggesting that retention is being substituted for service; (6) on-level instruction is critical for success regardless of students' initial performance levels; (7) of all teacher variables examined, only frequent coordination between regular and compensatory teacher is positively related to success; and (8) parental involvement is positively related to success. This report contains 18 references, 65 data tables, the data collection instruments, and a glossary. (SV)

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# PROGRAM EVALUATION REPORT

# COMPENSATORY EDUCATION

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PROGRAM EVALUATION REPORT

COMPENSATORY PROGRAMS IN TEXAS
1986-87

Executive Summary

Since the time that schools established distinct grade levels, students demonstrating specific competencies have been promoted to the next grade level. However, it soon became apparent that some students were not acquiring knowledge at the same rate as the majority of students. Some students progressed faster and some more slowly, while others appeared to make no progress at all. Although few educators would advocate slowing the learning rate of high performing students, a concerted effort has been made to address the problems of insufficient achievement. Early in the 1960s, it was noted that lack of ability is not the only, or even the strongest, predictor of academic failure. Specifically, inadequate educational stimulation in early childhood may be an equally powerful precursor of poor achievement. The assumption underlying many modern compensatory programs is that remediation of educational deficits is not only possible but also is the responsibility of the public education system.

Title I of the Elementary and Secondary Education Act (ESEA) of 1965 provided funds to local education agencies for supplemental programs designed to meet the needs of educationally deprived children from low income areas. Campuses qualified to receive funds under Title I by a measure of the socioeconomic conditions within the district. Currently, Chapter 1 (which replaced Title I) provides funds for both supplemental instruction and support services such as counseling, medical screening, and pupil transportation with funding in Texas for the 1986-87 school year in excess of $235 million.

State funding for compensatory education resulted from the passage of House Bill 1126 in 1975. During the period between 1979 and 1983, there were several important legislative changes to the state compensatory education program including an increased allotment of $50 per student and providing state funding based on the number of students eligible for the federal free and reduced price lunch program. Furthermore, the state compensatory program changed dramatically with the enactment of House Bill 72 in 1984. The compensatory allotment was significantly increased and a requirement added that the funds be spent directly for instructional costs. This action also renewed interest in the impact of these programs.

Numerous research efforts have been conducted to identify effective compensatory programs in a specific district or campus. This approach to the identification of effective practices has mixed benefits, since it is extremely difficult or impossible to identify specific elements associated with student success in the programs cited. In addition, many successful programs cannot be easily replicated in other districts. Another method used to recognize effective practices involves the identification of effective program practices which can be readily replicated in most settings. Some of the successful program practices

identified by previous studies include an emphasis on direct instruction, a reduced student/teacher ratio, parental involvement and support of the program, frequent assessment and communication of student progress, and coordination between the compensatory and regular programs.

For this study, approaching the identification of effective practices from both a campus and student level provided a combination of program information and student-specific information, allowing comparisons on different levels of information. The technique of using many "vantage points" when viewing the data should be particularly helpful to the wide variety of audiences served by this study.

A primary goal of this phase of the study was the development of a statewide overview of compensatory education programs as implemented in Texas. An explicit assumption of this evaluation was that findings would be limited to descriptions of compensatory education as currently practiced in Texas, not as programs could or should be implemented. The goal was neither to differentiate among programs funded by specific state, local, or federal sources nor among individual districts or campuses but rather to determine the general condition and impact of compensatory education in Texas. Another goal was identification of specific practices associated with successful and nonsuccessful students. This goal was anticipated to be useful in the development of local programs seeking to improve services to students.

Success, or lack of it, historically has been attributed to programs on the basis of student performance on singular outcomes such as test scores, grades, attendance, or drop-out rates. While each of these measures has been espoused in various studies or legally mandated evaluations, in actuality most programs would hope to achieve positive changes across a broad spectrum of these outcomes. The term success as used in this study encompasses a variety of definitions including achievement test scores, Texas Educational Assessment of Minimum Skills (TEAMS) scores, promotion rates, exit rates, and mastery of essential elements. Because some indices of success have little to do with objective measures, districts were also given the opportunity to rate students successful or nonsuccessful according to local standards. Analyses of the contrasts and agreements between objective and subjective measures of success were expected to provide interesting results.

Questionnaires reflecting the two major goals of the study - to provide a general description of compensatory programs statewide and to identify successful instructional practices - were developed based upon a number of different sources. In general, the campus questionnaires requested information on program implementation, instructors, students, and student performance. The individual student questionnaire was composed of 57 questions divided into sections covering student background information, performance measures, general and specific program implementation, teacher experience, and parental involvement.

Since the data in this report were not obtained from a strictly controlled experimental research design, attempts to draw inferential

conclusions from the data should be undertaken with considerable caution. Relationships based on correlation neither imply nor preclude causal relationships. Moreover, averages (means) are presented throughout the report. The reader should be aware that there will be considerable variation from the average in the descriptions and performance indicators of individual districts or campuses and should take great care in attempting specific interpretations or in making generalizations from these results.

The following brief summaries of the findings of this study are annotated by references to page numbers from the entire report. It is strongly recommended that the reader consult the referenced pages of the report to establish the context from which the findings and conclusions are drawn.

Students

1. Discrepancies are noted among the number of compensatory students used for state funding purposes (more than one million), the number of students needing remediation as determined by TEAMS failures (projected over all grade levels to be 800,000), and the estimated number of students served in compensatory programs funded by state and local resources (650,000) (page 24).

2. Nearly 20 percent of the campuses reported that fewer than 20 percent of the compensatory students were eligible for the free/reduced price lunch program (page 26).

3. TEAMS scores indicate considerable differences in performance between students served in Chapter 1 programs and students eligible for the free/reduced price lunch program even when considering overlap between the two populations (page 36).

4. Student data indicate that 56 percent of the compensatory students are eligible for the free/reduced price lunch program. The same students are more likely to spend longer periods of time in the compensatory program, less likely to participate in extracurricular activities, and more likely to exhibit lower performance on basic skills and achievement tests (pages 62 and 63).

5. Eligibility for the free/reduced price lunch program is not associated with either objective or subjective measures of success (page 75).

6. There is no relationship between student success and the number of schools (campuses) attended in the last five years. However, there is a general tendency for students remaining in the district for longer periods of time to be subjectively perceived successful (page 74).

7. Compensatory students with behavior problems and those who have large numbers of absences are less likely to be subjectively perceived successful (page 76).

8. In the opinion of district staff, compensatory students who are successful are much less likely to drop-out than those who are not successful (page 77).

9. Compensatory students participating in extracurricular activities are more likely to be successful, although few low-performing students participate in these activities (page 78).

Exit Rates

1. There is little difference in compensatory program exit rates in districts of various sizes. However, exit rates tend to decrease as the percentage of minority students and the percentage of students eligible for the free/reduced price lunch program increase (pages 38 and 39).

2. The relatively constant number of students in compensatory programs is considered to be related to methods of student selection for the programs (page 42).

3. The exit rate from seventh grade reading improvement (approximately 30 percent) is similar to exit rates found for elementary programs. The percentage of eighth grade reading improvement students scheduled for ninth grade Correlated Language Arts (CLA) reflects approximately the same exit rate with 60 percent continuing in a compensatory "track" (pages 43 and 44).

4. The exit rates from ninth grade CLA are lower than those for earlier grade levels. In fact, only 14 percent of the students both leave the CLA track and are promoted. Furthermore, the largest districts demonstrate different patterns than other districts including higher ninth grade English and CLA failure rates and more frequent use of ESL and other alternatives (page 47).

5. A related doctoral study indicated that decisions to place students in CLA as opposed to regular English courses are often contrary to expectation (page 47).

6. Another doctoral study identified practices directly related to successful remediation of exit level TEAMS failures including special classes, teacher coordination, and parental involvement (pages 49-51).

Promotion

1. Promotion rates for compensatory students are well below those for other students. In addition, retention rates are quite high for all first grade students (page 53).

2. It appears that retention is being used in place of continuing remediation in compensatory programs, particularly for compensatory students in the first grade. Moreover, some elementary students are exiting compensatory programs but are being placed into the next grade level, even though placement implies insufficient performance in the previous grade level (pages 55 and 56).

3. Promotion patterns similar to those for elementary grades are evident for seventh and eighth grade reading improvement students (pages 57 and 58).

4. Students who have never been retained are notably more successful than students who have been retained one or more times (pages 52 and 75).

5. High promotion rates are not necessarily associated with high exit rates for compensatory programs (pages 49 and 55).

Instructional Program

1. Of all compensatory students described in the campus responses, the following table indicates the percent in specific programs (duplicated percent): (page 25)

| GRADE LEVEL | PROGRAM | PERCENT OF STUDENTS |
|---|---|---|
| K-6 | Chapter 1 Regular | 36.0 |
| K-6 | Chapter 1 Migrant | 4.5 |
| K-6 | SCE or Local Funded | 14.5 |
| 7 | Reading Improvement and Other Compensatory | 9.5 |
| 8 | Reading Improvement and Other Compensatory | 7.6 |
| 9-12 | Regular Classes, Tutorials | 33.4 |
| 9-12 | Noncredit Classes | 2.8 |

2. There is considerable variation in the percentage of compensatory students receiving dual service by district size, percent minority, and percent low income. The student's apparent need for remediation is only marginally related to the provision of dual service (pages 31 and 83).

3. Dual service is negatively related to exit rates but is not related to promotion rates (pages 39, 40, and 56).

4. Data regarding instructional strategies employed at the campus level are generally too diffuse to be specifically linked to exit or promotion rates (pages 41 and 49).

5. Compensatory students receiving on-level instruction in all essential elements are more likely to be successful. By contrast, students instructed using fewer essential elements and those enrolled in large numbers of reduced/modified content classes are not particularly successful. This relationship is true even when the data are restricted to students whose need for remediation is greatest (pages 84, 88, and 89).

6. The size of the regular classroom is significantly related to success. Specifically, as class size decreases, the compensatory student is more likely to be successful. The size of the compensatory classroom, however, is not associated with either success or nonsuccess (pages 84 and 85).

7. Mastery learning is positively related to success, while the use of computerized instruction is not related to either success measure (pages 89 and 91).

8. Slightly more than half of the students receiving tutoring, either before/after or within the school day, are identified as successful (pages 91 and 92).

Other Variables

1. Of all the teacher variables examined, only coordination between the regular and compensatory teacher is related to success (pages 93 and 94).

2. All of the parent variables examined are significantly related to success. Participation in PTA/PTO organizations, adult education classwork, and parents working in the classroom are all related to success, while the number of parent/teacher conferences is related to nonsuccess (pages 95 and 96).

3. Compensatory students obtained positive yet moderate changes in achievement test scores, basic skills scores, and TEAMS scores (pages 35 and 71).

TABLE OF CONTENTS

Page

PREFACE.....i

Chapter

I. INTRODUCTION

Background.....1
Definitions.....2
Current Compensatory Programs.....2
Research Efforts.....5
Need for the Study.....7
Past Evaluation Strategies.....8
Three-Phase Study.....9
Broad Research Goals.....9
Summary of Findings from Phase I Study of Compensatory Programs.....10

II. EVALUATION STRATEGY

Introduction.....13
Measures of Success.....14
Target Population.....14
Questionnaire Development.....16
Data Acquisition.....17
Data Analysis.....18

III. FINDINGS

Introduction.....19
Campus Information.....22
Student Information.....59

IV. DISCUSSION

Introduction.....100
Student Issues.....101
Instructional Strategies.....103
Teachers and Aides.....103
Parents.....103
Summary Statement.....104
References.....105

Appendices

A. DEMOGRAPHIC CODING USED FOR STUDENT SURVEY

B. DATA COLLECTION INSTRUMENTS

C. EVALUATION REQUIREMENTS CONTAINED IN RULE AND STATUTE

LIST OF TABLES


| Table | | Page |
|---|---|---|
| 1: | Number and Percent of all Campuses Included in Study by ADA Grouping | 20 |
| 2: | Number and Percent of Students Included in Study by ADA Grouping (Study-Specific Categories) | 21 |
| 3: | Distribution of Teacher and Aide Experience in Compensatory Education Programs | 23 |
| 4: | Percent of Compensatory Students by Grade Span in Various Programs | 25 |
| 5: | Percent of Campuses with Indicated Percent of Free/Reduced Price Lunch Students Receiving Compensatory Services | 26 |
| 6: | Mean Percent of Students Eligible for Free/Reduced Price Lunch by ADA Category | 26 |
| 7: | Instructional Approaches by Grade Span for Districts with More Than 1,000 ADA | 29 |
| 8: | Instructional Arrangements by Grade Span for Districts with More Than 1,000 ADA | 30 |
| 9: | Percent of Campuses with Indicated Percent of Students Receiving Dual Service | 31 |
| 10: | Percent of Compensatory Students Receiving Dual Service by Analyze Category | 32 |
| 11: | Federal Chapter 1: 1986-87 Public Reading Achievement Data | 35 |
| 12: | Federal Chapter 1: 1986-87 Public Mathematics Achievement Data | 35 |
| 13: | TEAMS Scaled Scores by Program | 36 |
| 14: | Mean Percent of Student Exit Rates by Grade Level | 38 |
| 15: | Mean Percent of Students Exiting by Percent of Students Receiving More than One Type of Supplementary Instruction | 40 |
| 16: | Mean Percent of Students Exiting Per Grade by Instructional Strategy | 41 |
| 17: | Status of Eighth Grade Reading Improvement Students in Districts with More Than 1,000 ADA | 44 |
| 18: | Status of Students in Eighth Grade Reading Improvement by Instructional Strategy | 46 |
| 19: | Scheduled 1987-88 Status of Correlated Language Arts Students | 48 |
| 20: | Scheduled 1987-88 Status of Correlated Language Arts Students by Instructional Strategy | 50 |
| 21: | Mean Percent of Students Promoted | 54 |

## LIST OF TABLES


Table — Page

22: Relationship of Promotion, Retention, and Placement to Program Enrollment and Exit....55

23: Promotion Rates for Students by Percent Receiving Dual Service....56

24: Mean Percent of Students Promoted by Grade by Instructional Strategy..57

25: Mean Percent of Seventh Grade Students Promoted, Retained, and Placed....58

26: Number of Students in Sample Within Particular District Categories....60

27: Number of Students in Various Demographic Categories....61

28: Percent of Free/Reduced Price Lunch Students by Years in Compensatory Programs....62

29: Percent of Free/Reduced Price Lunch Eligible Students in Various Performance Categories....63

30: Values of Variables Composing Computed Success Measure....65

31: Values of Composite Scores and Subjective Success....66

32: Relationship Between TEAMS and Achievement Change Scores....67

33: Percent of Students with Selected Computed Success Scores by Grade Level....67

34: Distribution of Student Performance on Selected Test Measures....69

35: Percent of Students Changing from One Performance Category to Another....71

36: Distribution of Student Performance on Mastery of Essential Elements, Promotion, and English Reading Grade Level....72

37: Regression Analyses of Student Variables Predicting Success....73

38: Relationship Between Percent of Students Rated Successful and Years in District....74

39: Percent of Students Rated Successful by Number of Retentions....75

40: Percent of Students Rated Successful by Years in Program....76

41: Percent of Students Rated Successful by Amount of Absences....76

42: Percent of Students Needing Indicated Levels of Intervention....77

43: Percent of Students Rated Successful by Number of Extracurricular Activities....78

LIST OF TABLES


Table — Page

44: Percent of Students Engaged in Extracurricular Activities by Percentile Standing....78

45: Regression Analyses of District Demographic Variables Predicting Success....80

46: Percent Success by District Size....81

47: Regression Analyses of General Program Characteristics Predicting Success....82

48: Percent of Students Rated Successful by Dual Service....83

49: Percent of Students Receiving Dual Service by Texas Assessment of Basic Skills Performance Level....83

50: Percent of Students Rated Successful by Number of Reduced/Modified Content Classes Per Day....84

51: Percent of Students with Indicated Number of Special Classes by Percent of 1985 Basic Skills Reading Objectives Passed....84

52: Percent of Students Rated Successful by Size of Regular Classroom....85

53: Distribution of Class Size for Compensatory Students by Compensatory and Regular Classes....86

54: Regression Analyses of Instructional Strategies Predicting Success....87

55A and B: Percent of Students Rated Successful by Two Different Instructional Strategies....88

56A and B: Relationship Between Initial Performance, Success and Instruction....89

57A and B: Relationship Between Success and Mastery Learning....90

58A and B: Success Ratings by Additional Time on Task....91

59A and B: Success Ratings by Tutoring....92

60: Regression Analyses of Teacher Variables Predicting Success....93

61: Percent of Success by Amount of Coordination....94

62: Percent of Students in Categories of Coordination....94

63: Regression Analyses of Parent Variables Predicting Success....95

64: Percent of Students by Exit Status....97

65: Percent of Students Needing Various Levels of Intervention by Special Language Program and No Language Program Groups....98

COMPENSATORY PROGRAMS IN TEXAS
1986-87 PROGRAM EVALUATION

# PREFACE

This report on compensatory education describes findings from Phase II of a three-phase study conducted by the Texas Education Agency from the 1985-86 school year through the 1987-88 school year. The Phase I report discussed data obtained from a sample of 144 districts offering compensatory programs in school year 1985-86. Although the Phase I report was primarily descriptive in nature, it provided the necessary precursors to enable the implementation of Phase II.

The activities conducted in Phase II constitute the major data collection components of the study. Questionnaires sent to all districts in the state were designed to collect descriptive program information along with selected student performance data. Inferences linking program implementation to student performance are postulated on both campus and student levels.

This report is an overview of the compensatory programs in Texas. The results included in this report may not be applicable to any particular campus or district. There is considerable variability in programmatic approach, resources, and types of students among the various districts. This report will identify statewide issues and provide preliminary standards against which districts may compare local performance. Given the nature of this data collection, it is inappropriate to select specific districts for special attention. The reported results are reflective of the performance of students in compensatory programs statewide. Selected categorical breakdowns of data, differentiated by selected demographic variables, are also presented for more detailed examination.

# CHAPTER I

# INTRODUCTION

## BACKGROUND

During the nineteenth century, schools began to divide students into distinct groupings categorized as "grade levels." Students obtaining specific levels of knowledge and demonstrating some degree of competency were promoted to the next level. Student's age and grade level were related, in that one year of schooling was accomplished while the student aged one year. It was noted almost immediately that some students were not acquiring knowledge at the same rate as the majority of students. Some students were progressing faster, some slower, while others appeared to make no progress at all. While this variation in learning ability is hardly surprising, reflecting the wide range of human potential and environments, the differential rate presents administrative and instructional difficulties. Proffered solutions to this problem include Special Education and Gifted/Talented Education, among others, but the difficulties of addressing the needs of "special" students continue in today's schools.

Although few educators would advocate slowing the learning rate of high performing students, a concerted effort has been made to alleviate insufficient achievement. One traditional approach has been to retain students in a grade level until knowledge is obtained commensurate with that of an "average" student in the particular grade level. Once that level is attained, it is assumed that the student's shortcomings have been overcome and that he or she is ready to progress at a normal rate. This approach continues to be used, even though it is apparent that some students never obtain desired levels of achievement. In addition, this approach may result in the problem of an 18-year-old student with achievement, and placement, on a fourth grade level. To avoid these types of situations, districts may employ the technique of "social promotion," that is, moving students along the grade path at the same rate as their age group, regardless of knowledge obtained. However, this practice leads to the all-too-familiar outcome of functionally illiterate students with high school diplomas. As will be discussed later, the discrepancy between expected age and grade level is strongly predictive of dropping out of school.

Early in the 1960s, it was noted that lack of ability is not the only, or even the strongest, predictor of academic failure. Specifically, inadequate educational stimulation in early childhood may be an equally powerful precursor of poor achievement. Lack of an appropriately enriched environment is linked to family poverty, since food and shelter necessarily come before encyclopedias. The assumption underlying many modern compensatory programs is that remediation of educational deficits is not only possible but also is the responsibility of the public education system. As will be examined later, educational "need" in Texas is not currently restricted to any great degree and extends far beyond economic condition.

## DEFINITIONS

Compensatory education programs have historically varied widely both among and within districts due to the different fund usage restrictions accompanying state and federal allotments and the individual needs of the students being served by the programs. Compensatory programs are defined as those programs which are long-term, are typically multi-year, and attempt to make up for an initial deficit to allow students to function on a level equivalent to their peers. Examples include most Chapter 1 programs, bilingual programs, and certain secondary level courses which are typically multi-year in nature (i.e. Fundamentals of Math I, II, etc.). While compensatory programs generally occur at the lower grade levels, remedial programs are more common at the upper grade levels, are typically short-term, and attempt to correct specific deficits of learning. Examples include tutorials and peer counseling. Complicating the issue, there are no absolute differences between these approaches, and some courses, such as correlated language arts (CLA), might be remedial for some students and compensatory for others. In practice, CLA might be seen as compensatory for students progressing from CLA I to CLA II to CLA III and as remedial for students progressing from CLA I to English II and III.

Compensatory programs are further differentiated by funding source. Fiscal support is provided through federal Chapter 1, Chapter 2, and Title VII programs, state compensatory and bilingual education allotments, and local programs. In some cases, the only distinction among compensatory programs is due to restrictions on the use of funds supporting the programs. Some programs such as Chapter 1 are subject to a number of restrictions, while others such as those funded by Chapter 2 and state compensatory education resources are flexible enough to serve almost any student through a variety of instructional approaches.

## CURRENT COMPENSATORY PROGRAMS

The following historical descriptions of federal and state compensatory programs provide background information for this report.

### Federal Compensatory Programs

Title I of the Elementary and Secondary Education Act (ESEA) of 1965 provided funds to local education agencies for supplemental programs designed to meet the needs of educationally deprived children from low income areas. Campuses in Texas qualified to receive funds under Title I by a measure of the socioeconomic conditions within the district. However, the district selection criteria were not overly restrictive, and as a result, nearly 90 percent of all districts were eligible to receive Title I funds. Any underachieving child could receive compensatory education services, regardless of their family's socioeconomic status, provided the child attended school in a Title I district. In 1965, Texas expended approximately $78 million in Title I funds to serve 390,000 students. In 1986-87, this figure exceeded $235 million.

With each reauthorization of the ESEA during the 1970s, Congress added increasingly specific requirements regarding the expenditure of Title I funds. Some of the program requirements adopted during this time included a comprehensive assessment of each Title I student's educational needs, concentration of services provided through Title I funds to a limited number of students, and the stipulation that Title I instruction supplement, but not replace, the student's regular school program. During this decade, Congress required increased parental involvement in Title I programs through the use of parent advisory councils (PACs) and also increased from 1 percent to 1.5 percent the allowable portion of Title I funds set aside for state administration of the program and compliance activities.

In 1981, Title I was replaced by Chapter 1 of the Education Consolidation and Improvement Act (ECIA). This statute reduced or eliminated many of the parental involvement requirements included in Title I and reduced the allowable portion of funds for state administration to 1 percent with an accompanying relaxation of state monitoring requirements.

Currently, Chapter 1 provides funds for both supplemental instruction and support services such as counseling, medical screening, and pupil transportation. Districts are prohibited from supplanting local funds with federal funds. That is, districts may not use Chapter 1 funds to support the programs which would be provided through state or local resources, in the absence of a federally funded program. District and student eligibility requirements for Chapter 1 services remain essentially the same as described above. For the 1984-85 school year, 297,748 students received supplemental Chapter 1 services, with total Chapter 1 funding being approximately $234 million. Total Chapter 1 funding for school year 1985-86 was in excess of $222 million, and in school year 1986-87, funds exceeded $235 million.

Chapter 2 of the ECIA provides funds for basic skills development, educational improvement, and support services, as well as special projects in 28 program areas previously administered by separate programs. Allocations of Chapter 2 funds to districts are based on the percentage of children whose education imposes a higher-than-average cost per child on the district. Children whose education imposes a higher cost include those from low-income families, economically depressed rural or urban areas, and sparsely populated areas. For the 1985-86 school year, Texas received approximately $30 million in Chapter 2 funds and for the 1986-87 school year, approximately $29 million.

## State Compensatory Programs

State-funded compensatory education began as a result of the passage of House Bill 1126 in 1975. This bill provided a compensatory education allotment entitled, "Support for Educationally Disadvantaged Pupils." To be eligible for state compensatory education funds, a district had to receive federal funds under Title I of ESEA. Early in the program, state funds were closely tied to federal funds in a number of respects.

Beginning with the 1976-77 school year, the law required school districts to submit a coordinated plan regarding the use of federal and state compensatory funds to the Texas Education Agency. Following the federal model, state funds were defined as supplements to other state and local funds and were required to be spent on a targeted population. Specifically, the funds were to be spent on students who were identified by district standards to have educational need, and the funds were to be concentrated on addressing the needs of a limited number of students. State compensatory funds could be used to support programs in the curricular areas of reading, math, and language development as well as to support bilingual/multicultural development. Districts were required to apply for state compensatory funds through a combined application process involving federal Title I and Title I-Migrant funding as well. Finally, accountability measures prescribed for state funded programs were the same as those required for federal compensatory programs.

In 1977, the Texas Legislature repealed the statutory linkage between state and federal compensatory funds, although state compensatory funds were still allocated based on the number of Title I students in a district. The requirement that districts submit a coordinated plan for the use of state and federal compensatory funds was repealed. State administrative rules were changed to allow greater district discretion for the use of state compensatory funds. State funds were to be used as a portion of the total district effort in the area of compensatory education. In addition, the funding was no longer required to be concentrated on a limited number of students, although students with the greatest needs were to be given first consideration in the use of the funds.

The State Board of Education continued the trend toward greater district flexibility with a major revision of the rules in 1978. At that time, the Board moved toward student-centered service delivery. The broad goal of the compensatory program was to bring the student to a functional level in basic skills appropriate for their age group. The parameters called for program priorities in the areas of preschool education, communication skills, mathematics, bilingual/multicultural education, and support services for students during the transition from a compensatory program to a regular program.

During the period between 1979 and 1983, there were several important legislative changes to the state compensatory education program. First, the allotment was raised to $44 per student and was based upon the number of students in the district who were enrolled in the federal free and reduced price lunch program. Furthermore, the allotment was raised to $50 per student for 1982 and following years. In addition, legislation was enacted which required that student performance data be used in the design and implementation of compensatory services.

During this same period, State Board of Education rules were revised to reflect the elimination of ties to federal compensatory funds. For example, the application requirement was deleted and eventually replaced by the requirement that districts file a statement of intent. Allowable expenditures were expanded to include instructionally related activities, although noninstructional and administrative expenditures

were prohibited and construction and equipment expenditures were limited.

The state compensatory program changed dramatically with the enactment of House Bill 72 in 1984. The compensatory allotment was increased to a state average of $300 per student for the 1984-85 school year and $320 per student for the 1985-86 school year and following years. This represented an increase in the total appropriations for compensatory education from approximately $51.6 million in 1983-84 to approximately $319 million in 1984-85. The basis for distributing these funds continued to be the number of students in the district enrolled in the federal free and reduced price lunch program.

House Bill 72 provided funds which could be used to serve underachieving students. A legislative interpretation, which was distributed to all school districts prior to final passage of the bill, emphasized that districts were to retain a great deal of discretionary authority over the allotment. Tutorial, prekindergarten, and basic academic instruction programs were to receive priority consideration. Furthermore, the funds were to be spent directly for instructional costs with the exception that a maximum of 35 percent of the allotment could finance administrative expenditures. However, the percentage allowable for administrative expenditures was reduced to 15 percent of the total allotment by the State Board of Education in 1985.

## RESEARCH EFFORTS

Efforts to recognize effective practices in compensatory education programs have taken three forms. First, research has been conducted to identify effective compensatory programs. This type of research often highlights a specific district or campus which has been particularly successful in providing compensatory services. This approach to the identification of effective practices has mixed benefits, since it is extremely difficult or impossible to identify specific elements associated with student success in the programs cited. In addition, many successful programs cannot be easily replicated in other districts. For example, the success of the model program may be due to the presence and actions of some key figure in the district or on the campus. When districts attempt to adapt programs identified as successful to their situation, the cause associated with the model program's success may be inadvertently eliminated, or the model program may simply be inappropriate for the adopting district (National Assessment of Chapter 1 1986). Citations of particularly successful programs without concomitant identification of specific program features contributing to their success essentially provides incentive for improvement to other programs, but is of limited value in producing such improvements (Levine 1982).

Another method used to recognize effective practices involves the identification of effective program practices which can be readily replicated in most settings. This type of assessment was carried out in the Sustaining Effects Study, which obtained data from teachers' responses to questionnaires among other sources. Some of the successful

program practices identified by this category of studies include an emphasis on direct instruction, a reduced student/teacher ratio, parental involvement and support of the program, frequent assessment of student progress, and frequent communication of progress to the student. Coordination between the compensatory and regular curriculum materials provided to students in compensatory programs was also found to be an important element of successful compensatory programs.

Direct instruction techniques have been found to be effective in numerous studies of compensatory programs (Slavin and Madden 1987). Briefly, direct instruction is characterized by teachers actively presenting lessons and providing students with guided practice in new academic skills. This approach is in contrast to an instructional format emphasizing independent seatwork, a feature common to many individualized programs. While none of the studies suggest completely abandoning the practice of assigning seatwork to compensatory students, the findings indicate that heavy reliance on seatwork, especially when used to present new skills, is less effective than direct instructional formats (Brophy 1986).

A reduced student/teacher ratio has been recognized for some time to be beneficial to recipients of compensatory education services. Most studies suggest that student achievement gains become significant when learning activities take place in smaller groups (National Assessment of Chapter 1 1986). For example, some literature indicates that reductions in class size to groups of 10 or fewer students produce significant effects on learning, especially as the reduced class size is sustained for longer periods of time (Rowan and Guthrie 1987).

Parental involvement in compensatory education programs has also been recognized as an educationally sensible practice for some time (Stickney and Plunkett 1982). Parental involvement was a mandated practice under federal compensatory programs during the 1970s, although the emphasis on this practice has been weakened in recent years. A number of research efforts have concluded that student achievement improves when parents take a strong interest in their children's education and encourage them to do well, reinforcing school-based practices (National Assessment of Chapter 1 1986; Levine 1982).

Finally, frequent assessment of student progress with accompanying communication of progress, or lack of progress, to the student are practices commonly identified with effective compensatory education programs (Stickney and Plunkett 1982). Students who are frequently informed of their performance are better equipped to direct themselves and to develop a sense of personal responsibility for learning. Moreover, the positive incentives provided by evidence of progress have been shown to foster additional growth (Slavin and Madden 1987; Airasian and Madaus 1983).

Coordination between the materials taught in the compensatory program and those employed in the student's regular education program is a key element in effective programming (Allington and Johnston 1986). This concept of shared instructional goals is critical to students in compensatory programs for the simple reason that if teachers fail to

coordinate the curriculum, the responsibility for finding connections across lessons falls on the students who are already having difficulties in school. It stands to reason that students who are experiencing difficulties would also experience some amount of frustration when forced to coordinate their own instruction (Stickney and Plunkett 1982). Another problem which may be avoided through coordination is the cognitive confusion caused for students who are taught by different methods of instruction in the regular and compensatory classrooms. For example, students who are taught to read by code-oriented reading programs in the regular classroom and by meaning-oriented reading programs in the compensatory classroom are presented with two different sets of strategies and skills, neither of which works particularly well with the other program. If instruction in both classrooms is based on the same method, confusion is avoided and the student's compensatory experience serves to reinforce the regular instruction (Allington 1987).

Research efforts which identify effective practices have been quite useful, but the wide variation in the characteristics of students receiving compensatory services may affect the applicability of successful program features to all campuses. As findings of the National Assessment of Chapter 1 indicate, children served by compensatory programs are not a homogeneous population. Because school districts serve different populations, the students considered educationally disadvantaged can vary a great deal from district to district and even from school to school. In addition, the students within compensatory programs are not a constant group. These students enter and exit compensatory programs as their achievement fluctuates relative to that of their peers. In light of the variations in the population of students receiving compensatory services, identification of practices which are generally effective becomes a complicated effort.

Another method of recognizing effective compensatory programs involves the identification of general education practices which are conducive to the success of the compensatory program. For example, strong instructional leadership from the principal or department chairperson is frequently identified as an important factor in obtaining high student achievement patterns (Levine 1982). Effective school leaders are often identified as those who maintain public consensus among their staff on the primary goals and establish clear, attainable, and measurable objectives to obtain achievement of the goals (Mackenzie 1983). In addition, this type of study frequently cites emphasis on staff development as an effective practice. These studies suggest that it is important to provide specific inservice training to the entire faculty (Allington 1987).

## NEED FOR THE STUDY

Compensatory efforts were designed primarily to alleviate the effects of educational deprivation through the provision of supplementary instruction. As various compensatory efforts have been implemented, the amount of funding available for districts in Texas has significantly increased. In the 1986-87 school year, more than $550 million in federal and state funding was available for local district use in

compensatory programs. Although an accurate estimate is not available, many districts also expend a considerable amount of locally-generated funds in this effort. Furthermore, the expansion of fiscal resources for compensatory programs has been accompanied by an expansion in the categories of students who qualify for compensatory programs, resulting in a greater number of students being served.

Given the considerable funding dedicated to compensatory/remedial efforts, the undeniable long-term effects of failure upon students, and the detrimental effects of student failure upon the state's economy, it is apparent that a statewide evaluation of the program is warranted. As the next section of this report describes in detail, there have been many efforts to evaluate the impact and effectiveness of these programs. Specific information regarding the Phase II evaluation design is covered in the chapter entitled Evaluation Strategy.

## PAST EVALUATION STRATEGIES

Methods used to evaluate compensatory programs have varied widely, depending on the purpose of the study and its focus. For example, studies which focus on effective elements of successful compensatory education programs tend to rely on survey research techniques, field study or observation techniques, meta-analysis techniques, and best-evidence synthesis processes either singly or in combinations. Successful programs are often identified through the use of a district or campus case-study design. Studies of quantifiable factors of compensatory programs, such as student achievement, are often based on experimental or quasi-experimental research designs. These studies are frequently criticized, however, because of problems associated with initial dissimilarities between the control and experimental groups of students (Magidson 1977). Finally, routine evaluations of programs tend to combine descriptive information with accompanying student achievement and fund usage data or are presented as cost-benefit analyses.

Given the variety of evaluation techniques applied to compensatory programs, it is obvious that no clearly superior evaluation method exists. Rather, the most appropriate evaluation method depends on the purpose of the study. Studies which are focused on accountability will understandably differ from those which aim to identify effective program practices. According to recent literature, intensive evaluation of compensatory programs and practices requires specific or individualized evaluation as opposed to an aggregated data approach, since student needs and treatments vary widely from school to school (Rowan and Guthrie 1987). This finding would suggest that studies which are focused on students would be most appropriately researched by an individual case-study approach (Carter 1984). In fact, this approach was employed in the Sustaining Effects Study which collected data on 120,000 Chapter 1 students during a three-year period. Similarly, Phase II of the three-phase study of state-funded compensatory programs in Texas involves individual case studies of certain types of compensatory students. A brief summary of the three-phase approach employed in this study is presented below to provide perspective for this report.

## THREE-PHASE STUDY

One of the difficulties in designing any study is to select the aspects of the program to be examined. In consideration of resource constraints and the importance of the evaluation results, a three-phase approach was determined to provide the most effective investigation covering a maximum number of program components. Due to the conflicting results available in published research efforts, there was a concerted effort to examine as many process and product variables as possible. The terms process and product refer respectively to implementation and outcome issues. Conflicts in the literature range from stated absolutes such as "compensatory education does not help students and in fact is counterproductive" to positions at the other extreme such as "compensatory programs are the primary causal factor in increased student achievement and significant reduction in dropout rates." While methodological shortcomings partially explain diverse findings, other explanations include differences among studies in research questions, short-term versus long-term focus, selected outcome measures, and predisposition to outcomes supportive of particular positions.

## BROAD RESEARCH GOALS

While some of the objectives have been modified since the beginning of the study, the major goals of this research effort can be plainly summarized as:

(1) What forms of compensatory education are being offered for students?

(2) What student outcomes can be attributed to the program?

Within these very broad goals are many potential evaluation objectives and strategies. Of course, the overarching goal is to better serve students. A number of strategies were unsatisfactory for the purposes of this study, such as the simple approach of collecting pretest and posttest scores on all compensatory students. In addition, simply identifying those programs "doing a good job" is fraught with generalization difficulties because of the diversity of Texas districts and students.

Approaching the problem from both a campus and student level provided a combination of program and student-specific information, allowing comparisons on different levels of information. The technique of using many "vantage points" when viewing the data should be particularly helpful to the wide variety of audiences served by this study. In that regard, each of the three phases has different subgoals to enable the realization of the two main study goals.

### Phase I

The goals of the first phase of this study (1985-86) were the identification of the most valid and accessible data sources, refinement of evaluation questions, development of program descriptions, and

compilation of fiscal expenditures. A short summary of the findings of Phase I is presented immediately before the Evaluation Strategy section of this report.

### Phase II

The goals of this phase (1986-87) were modified to some extent after completion of the first phase. Basically, district-level information was extended and requested at the campus level. A notable addition was the collection of performance data in the form of exit rates and promotion, retention, and placement rates. Two of the goals of this phase were to link performance to program implementation and to examine the relationship between campus or district demographics and performance. Another goal was to take this analysis one step further using student data. The student data provide specific background information, performance measures, program implementation information, data regarding teacher characteristics, and information regarding the level of parental involvement.

### Phase III

This phase will use information from Phase II to identify specific campuses using successful practices and characterized by outstanding student performance. These campuses will be identified from a variety of district types which serve a mixture of different types of students. The identification of exemplary campuses, coupled with the specific information obtained in Phase II, should aid in implementing technical assistance efforts directed toward improving compensatory programs.

Before delineating the specific research strategy of this study, a brief review of the findings from Phase I is presented as background information for the interested reader.

## SUMMARY OF FINDINGS FROM PHASE I STUDY OF COMPENSATORY PROGRAMS

As noted, the Phase I portion of this study concentrated on developing the evaluation questions pertinent to the overall goals of the study. The following is a very brief summary of that phase. Complete information regarding the findings of Phase I of the study is available in the Phase I report, dated February 1987.

The Phase I evaluation strategy consisted of a data collection instrument sent to a sample of 144 districts which was supplemented by on-site visits to several school districts to interview principals, teachers, and program directors. Additional data were obtained from Agency files to supplement the questionnaires sent to the selected districts. It must be pointed out that these data were collected in a restricted sample for specific reasons, and as a result, the reliability of generalizations based on these findings is unknown.

## Phase I Findings

1. Some districts reported serving students in more than one program for example, in both state compensatory programs and Chapter 1 programs, while other districts had a policy of serving students in only one program at a time.

2. The estimated number of students served in state-funded compensatory programs was 418,000 in 1985-86, while more than 350,000 were served in federal Chapter 1 programs during the same school year.

3. Teachers in compensatory programs were as likely to be on the career ladder as teachers with regular assignments.

4. Teachers in compensatory programs were assigned in a variety of ways including all-day remedial programs, one period during the day, and after-school tutorials.

5. Few restrictions have been placed on the types of students to be served with state compensatory funds.

6. A wide variety of methods, techniques, and instructional arrangements are used to provide compensatory services to students.

7. As indicated by Texas Educational Assessment of Minimum Skills (TEAMS) failure rates, approximately 20 percent of students, in addition to those presently served, need remedial services.

8. Students most critically at-risk are correctly being placed into compensatory programs.

9. The tracking premise was not supported by data collected for this study. Basically, the tracking premise is the notion that students placed in compensatory programs perpetually remain in those programs.

10. Over 50 percent of the students receiving compensatory service for more than two hours per week were advanced to the next grade level or course. These students are presumed to be the most critically at-risk student population.

11. Analysis of a limited sample of data indicated that schools which implement special classes for remediation of TEAMS exit-level failures are more successful than schools which incorporate remediation into regular classrooms.

12. During the 1985-86 school year, Texas' Chapter 1 students showed percentile gains similar to previous years and similar to the gains of Chapter 1 students nationwide.

These results were considered in the final development of the evaluation strategy planned for Phase II of the study. Attempts to correct

specific weaknesses of the procedures used in Phase I were also incorporated into the Phase II strategy. Specific evaluation strategies are presented in the next section of this report.

# CHAPTER II

# EVALUATION STRATEGY

# INTRODUCTION

This report covers the second phase of the three-part study. The first year entailed a limited data collection as a pilot for the second phase. Year two of the study involved data collection efforts targeted to produce general descriptions of the compensatory education program and to delineate specific instructional practices associated with successful students. The next, and final, phase of this study will identify and investigate district and campus programs employing successful practices, as identified in Phase II of the study, and which evidence outstanding compensatory student performance.

A primary goal of this phase of the study was to obtain a statewide overview of compensatory education programs in Texas. An explicit assumption of this evaluation was that findings would be limited to descriptions of compensatory education as currently practiced in Texas, not as it could, or should, be implemented. Two practical limitations to a state-level evaluation must be recognized. This study was not conducted using a controlled experimental design to research contrasting effects of particular compensatory approaches. Secondly, it was not designed to contrast compensatory programs to regular programs. Although some of these comparisons may be inferred, the results presented in this study must be interpreted as data derived from a descriptive, correlational investigation. The goal was neither to differentiate among programs funded by specific state, local, or federal sources, nor among individual districts or campuses but rather to determine the general condition and impact of compensatory education in Texas. Further, it was recognized that this study, while certainly not the first, will not be the last study conducted on general or specific compensatory programs. Alternative interpretations of these data are expected, as well as the generation of new research questions.

A second, and almost competing, goal of this portion of the study was the identification of specific practices associated with successful and nonsuccessful students. While the primary goal is perhaps most useful for legislative and State Board of Education planning, the second goal is anticipated to be useful in the development of local programs seeking to improve services to students. The identification of specific practices associated with successful remediation should be of significance to program planners.

These two goals, and the many potential definitions of success, led to a bilevel (campus and student) data collection effort for this evaluation. In addition, linkage to the Texas Educational Assessment of Minimum Skills (TEAMS) database and the information collected for Chapter 1 reporting serve to enhance this report. More detailed descriptions of these last two components are presented in other reports available from the Texas Education Agency.

This chapter presents descriptions of the measures of success used in this study, the target population, the data collection instruments, the data acquisition and analysis process, and finally, the response rate.

## MEASURES OF SUCCESS

Before proceeding with the development of the evaluation strategy, a short discussion of the term "success" is warranted. Success, or lack of it, historically has been attributed to programs on the basis of student performance on singular outcomes such as test scores, grades, attendance, or drop-out rates. While each of these measures has been espoused in various studies or reports of legally mandated evaluations, in actuality most programs would hope to achieve positive changes across a broad spectrum of these outcomes. The term "success" as used in this study encompasses a variety of definitions to include:

- Achievement test scores
- TEAMS scores
- Promotion/retention/placement rates
- Exit rates from the program
- Mastery of essential elements

While an extensive list of outcomes is possible, only a finite number can be practically examined in any one study. This list encompasses five of the most frequently mentioned measures of success in Phase I of this study. Interviews with selected district and Agency staff were used to confirm the appropriateness of these measures.

An additional, subjective measure of success was collected in the study. Because some indices of success have little to do with objective measures, districts were given the opportunity to rate students as successful or nonsuccessful according to local standards. Analyses of the contrasts and agreements between objective and subjective measures of success were expected to provide interesting results.

## TARGET POPULATION

### Selection of Campuses

Although a specific design was employed in distributing data collection instruments, the actual data collection effort was a modification of the original plan. The intent of the study was to request staff on every campus with a compensatory program to complete a data collection instrument. This approach would not only ensure adequate numbers of campuses but would also serve the purpose of meeting the statutory requirement for reporting on compensatory programs by campus (TEC §21.557 (d)). During the data collection phase, however, several district coordinators indicated that many campuses would not be able to provide the requested data in a reliable manner. Rather than force an ill-considered response from all campuses, it was decided that quality responses from a sample of campuses (selected by the districts themselves) represented a reasonable compromise for data collection.

## Student Sampling

Since state funding is based on more than one million students, no serious consideration was given to obtaining data on all compensatory students. In the development of the design, two sampling plans were considered, (1) a stratified-by-district, random student selection within the district approach and (2) a stratified-by-district, purposive student selection sample. Although there was a need to stratify by district type and grade level, the issue of random versus purposive student selection was carefully considered. Random selection (e.g. every third student arranged alphabetically) has the advantage of being truly representative and therefore results would be quite generalizable. However, a potential difficulty is intentional, as opposed to random, selection of students. Given some evidence of districts' mistrusting the motives underlying this study and of inadvertent tendencies to select the best students in order to reflect well upon the district, it was suspected that an attempt to obtain a true random selection of students might actually provide a highly biased sample.

Because one goal of the study was to identify successful and nonsuccessful instructional practices, district staff were requested to "randomly" select students who met specific criteria. Although this purposive selection might seem to limit the ability to generalize the findings to the entire compensatory program, it makes the intent of the study very clear and helps ensure selection of students from the target populations. As discussed earlier, the campus surveys were the intended source of data to be used when discussing the overall impact of the program. The representativeness of the student data collected with this approach, as it relates to the entire population of compensatory students, was examined in the data analysis process.

To obtain accurate and honest responses, specific district identification was not included on the student response sheets. While this precluded identification of the districts returning the questionnaires, analysis indicated little systematic deletion which might seriously bias the results. Analysis by district type was made possible through the use of a demographic code. This code was specifically constructed so that no one district had a unique code, again guarding against specific student, staff, or district identification. This structure resulted in a slight "blurring" of district categories but retained sufficient resolution for meaningful analysis. The various code categories are delineated in Appendix A.

To reflect the multi-faceted definition of success desired in this study, three criteria were used to obtain students for the sample. Districts were instructed to select students who were exemplars of success and nonsuccess within each of three categories: (1) performance on TEAMS testing, (2) promotion/retention, and (3) subjective, district-defined measures. Student selection requests sent to districts were stratified by grade level and by program type (for example, federal Chapter 1) to ensure coverage of all aspects of the compensatory program. A computer-generated list describing the specific numbers and types of students requested (example in Appendix B) was provided to each district contact person. A relatively small number of students were to

be included in the sample from each district (ranging from six to 36 depending upon district size). Because of a lack of students meeting requested grade level and success criteria, limited substitution of students from different grade levels was permitted. Approximately one-third of the districts chose this option with the remaining deleting questionnaires for students not meeting the requested criteria. The random assignment of student type and grade levels across all districts ensured that little systematic bias would be introduced by this procedure.

### Other Data Sources

Additional data for this report included federal Chapter 1 and TEAMS information. Although annual Chapter 1 reports are required to include data for all students participating in the program, Chapter 1 performance data must be considered as reported from a nonrandom subset of the Chapter 1 population. Specifically, Chapter 1 requires that students be present for both pretest and posttest in order to be included in the performance section of the evaluation. Because of high mobility, among other causes, Chapter 1 students with reportable test scores represent approximately 70 percent of total participants. The students lacking both pretest and posttest scores are probably excluded in a nonrandom fashion, which means that the students whose test scores <u>are</u> reported may not be representative of the entire Chapter 1 population.

TEAMS data are derived from a single measurement and include a large majority of students at each grade level tested. Although testing occurs at the odd-numbered grade levels, there is little reason to believe that the results may not be generalized to the other grade levels or to suspect any systematic biasing of results.

## QUESTIONNAIRE DEVELOPMENT

Questionnaires reflecting the two major goals of the study, (1) to provide a general description of compensatory programs statewide and (2) to identify successful instructional practices, were developed based upon a number of different sources. State statute and State Board of Education rule contain various evaluation requirements which are included in Appendix C. In addition, specific charges and inquiries for summary and detailed data from the Texas Legislature and the Board were instrumental in the selection of the specific evaluation topics. Other sections of the questionnaires were designed in response to the more general charge in Texas Education Code §11.63 (a)(3):

> seek to assist local school districts in developing effective and improved programs of education through research and experimentation, consultation, conferences, and evaluation,...granted by statute.

In designing a data collection instrument responsive to these charges, a variety of sources were consulted including the results from Phase I of

this study, Agency program staff, selected district program and evaluation staff, and previously published research.

### Campus Questionnaire

Two different campus questionnaires (Appendix B) were developed for districts with greater and less than 1,000 refined average daily attendance (ADA), respectively. This dichotomy meant that small districts were not required to provide as much information, in consideration of the limited resources of these districts and because the small number of students at each grade level could result in relatively unstable data.

In general, the questionnaires requested information on the numbers of instructors assigned to compensatory programs and on the degree of teacher and aide experience. Information on the number of students in compensatory programs, students eligible for free/reduced price lunch, and those receiving instruction in more than one program (dual service) was requested from all campuses. Instructional arrangements and approaches employed in the program were collected from campuses in districts with more than 1,000 ADA. Student performance information was obtained from the same grade levels at which the TEAMS test is administered. In addition, information on the numbers of students enrolled in reading improvement and correlated language arts classes was requested.

### Student Questionnaire

One form of the student questionnaire was used for all campuses (Appendix B). It consisted of 57 questions divided into sections covering student background information, performance measures, general and specific program implementation, teacher counts and experience, and parental involvement. These questions were developed in consultation with selected district staff as well as program staff at the Agency. All responses were entered on scannable answer sheets for electronic processing.

## DATA ACQUISITION

All data collection instruments were sent to district superintendents to be forwarded to district contact persons in packages containing the requested number of student questionnaires and a print-out indicating types of students to be selected. An estimated number of campus-level questionnaires were sent to each district based on expected numbers of campuses with compensatory programs. Contact people were instructed to duplicate the campus form as needed. The packet also included detailed data collection instructions for district and campus contact persons, definitions, and a letter from the commissioner of education urging participation in the study.

The packages were transmitted to districts in late April 1987. Contact people in the districts were allowed until August 30, 1987, to return

the campus questionnaires and until September 30, 1987, to return the student questionnaires.

## DATA ANALYSIS

### Quality Control and Data Entry

Before data collection instruments were submitted for processing they were scanned for obvious errors. Student questionnaires were examined for stray markings and general condition of the scan sheet. In some cases, responses were transferred from physically unusable sheets to intact forms. Campus questionnaires were examined for correct type and general reasonableness of response, for example, checking to be certain that percentages were not given where number of students was requested. Whenever possible, districts were contacted for correction of questionable data. During this phase a decision was made to delete the full time equivalent (FTE) staff information from the analysis due to lack of confidence in the responses.

Data entry of the student questionnaires was accomplished using data processing equipment at the Region XX Education Service Center to transfer data to magnetic tape for storage at the Texas Education Agency. Data from the campus questionnaires were entered by on-line key entry personnel at the Agency. These data were also transferred to disk storage for analysis.

### Statistical Analysis

All analyses were accomplished using the SAS statistical package installed on the Agency mainframe computer. The following analyses were conducted when appropriate:

- Means and standard deviations
- Frequencies
- Cross tabulation tables
- Multiple correlation/regression
- Factor analysis

# CHAPTER III

# FINDINGS

## INTRODUCTION

Before presenting the results of the analyses, it should be noted that this report is based on information gathered after the compensatory programs had been in operation the entire school year. Since the data were not obtained from a strictly controlled experimental research design, attempts to draw inferential conclusions from the data should be made with considerable caution. The data are presented in a manner which allows performance contrasts among selected values of student and district demographic categories. However, data showing that the very largest districts have lower promotion rates than other districts should not be interpreted as causal. That is, it is not reasonable to expect that simply having more students in the district would lead, in and of itself, to lower rates of promotion. An alternative, and more likely, hypothesis is that some other instructional factor associated with larger districts, such as higher student/instructor ratios, might adversely affect promotion rates. Correlation neither implies nor precludes a causal relationship.

The tables and regression analyses presented here are correlational in nature. In other words, they indicate that phenomena occur together, although one variable may not be causally linked to another either directly or indirectly. However, differences indicated are "real" in the sense that they are evident in the data collected. Where appropriate, statistical associations and probability of occurrence will be presented. These comparative presentations should prove useful to those desiring to develop or modify instructional strategies.

Averages (means) are presented throughout the following discussion. The reader should be aware that there will be considerable variation from the average in the descriptions and performance indicators of individual districts and campuses. Accordingly, one should take great care in attempting specific interpretations and in making generalizations from these results.

### Rate of Response

While few data collection efforts achieve a 100 percent return rate, a reasonable rate of return is required before generalization of the results is possible. Although the term "reasonable" is open to interpretation, the return rates in this study are considered adequate even though some of the larger districts returned data from a sample of campuses. Table 1 indicates the number and percent of campuses which returned data in each of the ADA categories delineated by the Analyze procedure, a computer program used by the Agency to summarize data by selected district demographic variables. Three of these categories will be used extensively in the Findings section of this report. Note that the percent of campuses responding within each ADA category is computed on the basis of all campuses within a district, not only those with compensatory programs. Therefore, the rate of response is a conservative figure, since some campuses do not have compensatory programs. At the time this report was prepared, an accurate count of the number of campuses with compensatory programs was not available.

Although the exact percentage of campuses with compensatory programs returning this data collection instrument is unknown, the figure of 55.3 percent of the total number of campuses in the state represents a more than adequate sample. Furthermore, data presented later will indicate that the percent of compensatory students included in the study is actually much larger than this percentage of campuses included in the study. Althougi. Table 1 shows variation in the rate of return among the ADA categories, the percentages obtained provide an adequate basis for generalization in all categories.

TABLE 1
NUMBER AND PERCENT OF ALL CAMPUSES INCLUDED IN STUDY
BY ADA GROUPING FROM THE ANALYZE PROCEDURE

| ADA GROUPINGS | NUMBER RETURNED | PERCENT OF CATEGORY |
|---|---|---|
| More than 50,000 | 441 | 53.8 |
| 25,000 -49,999 | 375 | 60.9 |
| 10,000 -24,999 | 659 | 63.2 |
| 5,000 - 9,999 | 259 | 61.8 |
| 3,000 - 4,999 | 433 | 69.3 |
| 1,600 - 2,999 | 350 | 68.4 |
| 1,000 - 1,599 | 269 | 62.0 |
| 500 - 999 | 182 | 31.8 |
| Less than 500 | 267 | 33.1 |
| Statewide | 3,235 | 55.3 |

The numbers of student questionnaires requested and returned and the percent returned are presented in Table 2. Because of the method used in requesting specific types of students, the smallest districts would be expected to have high "miss" rates. In other words, in many cases a particular type of student requested would simply not be available in the district. Considering this methodology, the 35 percent return rate for the smallest districts may even be considered somewhat high. The return rate from the largest districts, however, is somewhat disappointing, given a greater likelihood of finding the types of students requested.

Interestingly, the return rate for districts with 1,000 - 2,999 ADA exceeds the number of responses requested. Since the data were submitted on scan sheets that are not easily duplicated, it can only be assumed that there was considerable miscoding of this particular demographic category. The possibility of deliberate distortion of ADA classification cannot be dismissed, although the data requested were student-specific and district anonymity was assured. Fortunately, these errors do not appear to limit the utility of the findings.

TABLE 2
NUMBER AND PERCENT OF STUDENTS INCLUDED IN STUDY
BY ADA GROUPING FROM STUDY-SPECIFIC CATEGORIES

| ADA GROUPING | NUMBER REQUESTED | NUMBER RETURNED | PERCENT OF CATEGORY |
|---|---|---|---|
| >25,000 | 528 | 218 | 41.3 |
| 10,000 -24,999 | 774 | 594 | 76.7 |
| 5,000 - 9,999 | 432 | 266 | 61.6 |
| 3,000 - 4,999 | 1,116 | 703 | 63.0 |
| 1,000 - 2,999 | 768 | 835 | 108.7 |
| <1,000 | 4,512 | 1,613 | 35.7 |
| Not Indicated | | 338 | |
| Total | 8,130 | 4,567 | 56.2 |

## Presentation Strategy

The remainder of this chapter is divided into two sections: Campus and Student. This division is necessary in view of the diverse nature of the data collected and reflects the goals of this phase of the study. Both the campus and student data are further subdivided into descriptive and performance portions. The campus section includes Texas Educational Assessment of Minimum Skills (TEAMS) data along with district-level federal Chapter 1 reporting information.

## CAMPUS INFORMATION

### DESCRIPTION

This section of the findings is specific to campus information and is divided into description and performance subsections. In the description subsection, data are presented concerning (1) campus and instructor attributes, (2) student attributes by campus, and (3) instructional strategies employed within the campus. The performance subsection follows with information covering student outcomes.

### CAMPUS AND INSTRUCTOR ATTRIBUTES

As part of the campus data collection, descriptive information about the campus and its instructors was requested. In addition, standard county-district-campus numbers were included to provide a link to Agency files containing demographic information used in subsequent analyses of the data.

Responses from the questionnaires indicate that campuses in this sample have had federal Chapter 1 programs for an average of 13.3 years and other compensatory programs for an average of eight years. Although there was a considerable range of experience reported, most campuses were grouped around the mean reported for Chapter 1 experience.

To provide parallel information regarding overall campus experience with compensatory programs, questions were included to ascertain the numbers of compensatory teachers and aides and the amount of their experience with compensatory programs. The information reported is based on the totals of 27,156 teachers and 7,325 teacher aides with compensatory assignments. As was discussed earlier, the data collection on full-time-equivalent personnel was not considered reliable enough for inclusion in this report. Thus the resource commitment, in terms of total staff time spent in direct service delivery, is not available from these data. As a result, the totals above represent the number of staff involved in compensatory education but not the percentage of staff time spent in compensatory instruction. The actual amount of time may vary from one tutorial class per week to full-time employment.

It is frequently assumed that inexperienced teachers are placed in compensatory programs to "earn their wings," and that new teachers are placed in programs funded by federal dollars in order to protect experienced teachers who are placed in programs with more stable funding. However, trends in the longevity of federally funded programs (such as Chapter 1 and 2) and the current economic situation in Texas raise questions regarding the wisdom of such a practice. Furthermore, data analysis in Phase I of the study indicated that teachers with compensatory assignments were about as likely to be placed on the career ladder as regular education teachers. Assuming that placement on the career ladder is related to both quality and experience, compensatory teachers would be less likely to be placed on the career ladder if, in

fact, they were less experienced teachers. The following table indicates the relative percentage of teachers and aides in the various experience categories.

TABLE 3
DISTRIBUTION OF TEACHER AND AIDE EXPERIENCE
IN COMPENSATORY EDUCATION PROGRAMS

| | --DISTRICTS WITH MORE THAN 1,000 ADA-- | | --ALL DISTRICTS-- |
|---|---|---|---|
| YEARS OF EXPERIENCE | PERCENT OF TEACHERS | PERCENT OF AIDES | PERCENT OF ALL TYPES OF TEACHERS |
| 1 year | 17.8 | 21.7 | 12.2 |
| 2-3 years | 30.3 | 28.0 | 10.2 |
| 4-5 years | 12.3 | 11.6 | 9.6 |
| 6 or more years | 39.6 | 38.7 | 68.0 |
| | N=17,473 | N=4,726 | N=191,464 |

Table 3 indicates that the largest percentage of teachers and aides have at least six years of experience. Interestingly, there seems to be a relative lack of teachers and aides in the 4-5 year experience range. As compared to the overall years of teaching experience for all teachers in the state, the number of years of compensatory-specific experience is less, but it should be remembered that this table presents the number of years of experience specific to compensatory programs, not the overall teaching experience of compensatory teachers. Further, these data were derived only from campuses in districts with more than 1,000 ADA. However, the pattern of the percentages for teachers in the sample is similar to that of the total statewide population of teachers with the highest percentage in the "six or more years" category and the lowest in the "4-5 years" category.

## STUDENT ATTRIBUTES BY CAMPUS

This section of the report provides estimates of the number of students served in various programs along with a discussion of the relationship between program service and eligibility for the federal free/reduced price lunch program. Percentages in the tables of this section may not always add to 100 percent due to rounding and, in some cases, are not additive because of intentional duplicated counting.

### Student Counts

Data from the questionnaire indicated that 675,317 students received direct compensatory instructional services during 1986-87. This count probably does not include all students in the state because responses to this item were not obtained from all campuses with compensatory programs. Another question requested the number of students indirectly benefiting from compensatory programs. Indirect benefits include resources acquired with compensatory funds which have wide-spread application, such as library books or computers. The number of students

reported as indirectly benefiting was 1,389,002 which, after subtracting the number of students already receiving direct service, is approximately the same number as those receiving direct service. Furthermore, the proportion of students indirectly benefiting to those directly benefiting was not significantly different between the campuses in greater than 1,000 ADA and less than 1,000 ADA districts. Finally, results indicate that approximately 14 percent of all compensatory students are scheduled for summer school for the purpose of receiving further compensatory services.

Based on the data received, estimates of the total number of students receiving direct instructional services statewide were made by comparing the number of Chapter 1 students reported in this study to the number reported on the federal data collection instruments. This comparison indicated that approximately 70 percent of those reported in the mandatory federal process were included in this study. Assuming that there was a comparable inclusion rate for all programs and applying this correction factor to the previous count, an estimated total of 965,000 students receiving compensatory services was calculated. Subtracting from this amount the total number of Chapter 1 (i.e. federally funded) students and the 10 percent of students who receive more than one compensatory service (dual service), the number of students receiving compensatory services supported by state and local funding sources was estimated to be 650,000 for the 1986-87 school year. There is some indication that the number of students served in compensatory programs as derived with this technique is a liberal estimate. Data indicate that 96 percent of the students served in seventh grade reading improvement were included in the questionnaires. This percentage is based on a comparison to the membership count from the Superintendent's Annual Report.

Applying this technique to the data acquired from a sample of 144 districts in 1985-86 during Phase I of the study yields an estimate of 460,000 served in state and locally funded programs in the 1985-86 school year. While the 1986-87 estimate (650,000) is substantially larger than that for 1985-86 (460,000), indicating a significant increase in the number of students served in state and locally funded compensatory programs, the 1986-87 number is still significantly less than the State Compensatory Education funding base of 1,069,745 students (Source: Texas Education Agency, Division of State Funding).

For the purpose of comparison, the number of students identified as needing remediation on the basis of 1987 TEAMS failures was approximately 440,000 (Source: Texas Education Agency, Division of Student Assessment). By state statute, TEC §21.557, students who exhibit need for remediation as indicated by TEAMS scores must receive compensatory services. Because TEAMS is only administered to students in odd-numbered grade levels, excepting the twelfth grade exit examination, it might be estimated that 800,000 students, approximately double the number above, would need remediation if TEAMS were given at every grade level. Again, there appear to be discrepancies among the number of students counted for state funding (1,069,745), the number of students needing remediation as indicated by TEAMS data -- projected for

all grade levels (800,000), and those estimated to be served with state and local resources (650,000).

Service by Program.

For all compensatory students described in campus responses, the following table represents the distribution by grade span of the percentage of students receiving service through various programs.

TABLE 4
PERCENT OF COMPENSATORY STUDENTS BY GRADE SPAN IN VARIOUS PROGRAMS

| GRADE LEVEL(S) | PROGRAM | PERCENT OF STUDENTS |
|---|---|---|
| K-6 | Chapter 1 Regular | 36.0 |
| K-6 | Chapter 1 Migrant | 4.5 |
| K-6 | SCE funded similar to Chapter 1 | 14.5 |
| 7 | Reading Improvement | 9.5 |
| 8 | Reading Improvement | 7.6 |
| 9-12 | Regular Classes | 33.4 |
| 9-12 | Noncredit Courses | 2.8 |
| TOTAL (duplicated count) | | 108.3 |

This duplicated count exceeds 100 percent by 8.3 percent, a value which gives some credence to the estimate of 10 percent dual compensatory service which was used earlier to determine the number of students served in compensatory programs. The 10 percent dual service figure is specific to compensatory programs as defined in this study, (i.e., exclusive of bilingual instruction).

## Free/Reduced Price Lunch Eligible Students

Because decisions regarding compensatory funding are often based on the percentage of low income students, as measured by the percentage of students eligible for the free/reduced price lunch program, the relationship between being eligible for free/reduced price lunch and receiving compensatory services is continually an issue of interest. Currently, state compensatory education funds are distributed on the basis of the roughly one million students eligible for the free/reduced price lunch program. The table below indicates the percent of campuses by percentage of compensatory students eligible for the free/reduced price lunch program. The table may be read; for example, 8.2 percent of the campuses in the state have compensatory programs in which between 20 and 29 percent of the students are eligible for the free/reduced price lunch program.

TABLE 5
PERCENT OF CAMPUSES WITH INDICATED PERCENT OF FREE/REDUCED PRICE LUNCH (F/RPL) STUDENTS RECEIVING COMPENSATORY SERVICES FOR ALL DISTRICTS IN THE SAMPLE

| PERCENT OF STUDENTS IN COMPENSATORY PROGRAMS ELIGIBLE FOR F/RPL | PERCENT OF CAMPUSES |
|---|---|
| >80 | 30.9 |
| 60-79 | 17.5 |
| 40-59 | 16.5 |
| 30-39 | 7.7 |
| 20-29 | 8.2 |
| <20 | 19.1 |

From this table, it is apparent that the compensatory student populations on many campuses include less than a majority of students who are eligible for the free/reduced price lunch program. The next table, however, presents a different viewpoint.

TABLE 6
MEAN PERCENT OF STUDENTS ELIGIBLE FOR FREE/REDUCED PRICE LUNCH BY ADA CATEGORY

| ADA GROUPINGS | PERCENTAGE OF COMPENSATORY STUDENTS ELIGIBLE FOR F/RPL | PERCENTAGE OF ALL STUDENTS IN DISTRICT ELIGIBLE FOR F/RPL | DIFFERENCE BETWEEN PERCENTAGES |
|---|---|---|---|
| More than 50,000 | 72.6 | 52.0 | 20.6 |
| 25,000 -49,999 | 48.6 | 27.2 | 21.4 |
| 10,000 -24,999 | 50.8 | 31.3 | 19.5 |
| 5,000 - 9,999 | 57.8 | 41.6 | 16.2 |
| 3,000 - 4,999 | 51.0 | 29.2 | 21.8 |
| 1,600 - 2,999 | 57.6 | 36.0 | 21.6 |
| 1,000 - 1,599 | 55.9 | 34.3 | 21.6 |
| 500 - 999 | 54.4 | 33.6 | 20.8 |
| Less than 500 | 58.7 | 39.2 | 19.5 |

This table shows that 72 percent of the students on campuses within the largest districts are eligible for free/reduced price lunch. The percentage of students eligible for free/reduced price lunch in the compensatory program must be compared with the overall percentage of free/reduced price lunch students within the district (column two of Table 6). Column three of this table indicates a relatively constant difference between the percentages within the districts and within the program. This difference is computed simply by subtracting the second column from the first.

However, the most important finding from this table, concerns the relationship between free/reduced price lunch status and compensatory service. If there was no relationship between the free/reduced price lunch status and compensatory service, then the first and second column percentages would be approximately equal. That is, both the overall population and the compensatory population would have equal percentages of students eligible for free/reduced price lunch. On the other hand, if there was a perfect relationship between eligibility for free/reduced price lunch and compensatory service, then column one would consistently be 100 percent. Obviously, the values in column one fall between the percentages for the overall student population and 100 percent and are generally closer to those of the overall population.

These findings raise questions concerning the linkage between funding based on numbers of free/reduced price lunch students and students needing and receiving compensatory services. Although nearly 75 percent of the students in compensatory programs within the largest districts are eligible for free/reduced price lunch, this percentage drops to approximately 50 percent in the remainder of the districts. While this information speaks to the percentage of free/reduced price lunch students within the compensatory program, it does not address the issue of the overall percentage of free/reduced price lunch students in the district who are also in compensatory programs. Moreover, this issue cannot be specifically addressed from the data obtained for this study. However, the issue of free/reduced price lunch eligibility will be examined further in the section covering student data.

## INSTRUCTIONAL STRATEGIES BY CAMPUS

In this section, the various instructional arrangements and approaches used in compensatory programs are discussed along with the provision of dual service. Generally, dual service may be characterized as a situation in which a student is being served by more than one compensatory program during the school year. Each of these instructional delivery techniques will be collectively referred to as instructional strategies.

### Instructional Approaches and Arrangements

In order to help meet the statutory requirement of TEC §21.557(d) for describing instructional services by campus, the questionnaires included

a checklist of various instructional arrangements and approaches. The terms instructional arrangements and approaches are generally used to describe program implementation. Arrangements typically are defined as the physical setting in which instruction occurs, while approaches typically represent the instructional methodology.

Because these terms are not always clearly separable, some arrangements can also be deemed approaches. Furthermore, certain instructional approaches may dictate unique instructional arrangements, while others may not. For example, computerized instruction requires a computer, while mastery learning can occur in a variety of instructional settings. However, specific categories were determined for the purpose of data analysis.

The percentage of campuses using the various instructional strategies is reported by grade span (K-6, 7-8, and 9-12) in Tables 7 and 8 on the following page. Campuses structured with grade divisions other than those presented are included in the category best reflecting the grade levels served.

TABLE 7
INSTRUCTIONAL APPROACHES BY GRADE SPAN
FOR DISTRICTS WITH MORE THAN 1,000 ADA

| APPROACH | PERCENT OF CAMPUSES IN GRADE SPANS USING PARTICULAR APPROACHES K-6 | 7-8 | 9-12 |
|---|---|---|---|
| Mastery Learning | 67.8 | 64.0 | 66.4 |
| Drill and Practice | 94.0 | 91.0 | 93.1 |
| Reduced Instructor/ Student Ratios | 76.7 | 78.7 | 75.2 |
| Self-paced Instruction | 42.8 | 46.9 | 42.5 |
| Study Skills | 70.0 | 80.3 | 74.7 |
| Test-taking Skills | 73.9 | 76.6 | 75.6 |
| Peer/Cross-age Tutoring | 26.5 | 27.8 | 28.5 |
| Team Teaching | 30.3 | 20.6 | 15.6 |
| Grouping Heterogeneously | 62.0 | 54.5 | 54.7 |
| Grouping Homogeneously | 71.3 | 75.0 | 71.3 |
| Individualized Progress | 56.1 | 52.5 | 47.9 |
| Additional Time on Task | 64.9 | 55.2 | 58.4 |
| Other Approaches | 13.5 | 14.2 | 14.0 |

An examination of Table 7 indicates that the difference between the instructional approaches used in the different grade levels is not as large as might have been expected. The percentages presented in the table represent a duplicated count; that is, campuses generally employ more than one type of approach. Although it is apparent that there is considerable variation in the amount of usage for the various approaches, it is important to note that districts use a wide variety of approaches in attempting to tailor instruction to the needs of students.

TABLE 8
INSTRUCTIONAL ARRANGEMENTS BY GRADE SPAN
FOR DISTRICTS WITH MORE THAN 1,000 ADA

| ARRANGEMENT | PERCENT OF CAMPUSES IN GRADE SPANS USING PARTICULAR ARRANGEMENTS K-6 | 7-8 | 9-12 |
|---|---|---|---|
| Aide in Class | 55.0 | 42.9 | 28.8 |
| Basic Skills Instruction (full-day) | 41.6 | 28.6 | 28.1 |
| Send In | 28.7 | 15.3 | 10.8 |
| Pull Out | 68.1 | 20.2 | 14.3 |
| Computer-oriented Instruction (in classroom) | 28.9 | 41.1 | 41.5 |
| Lab Setting with Computers | 52.6 | 51.8 | 44.7 |
| Lab Setting without Computers | 11.9 | 26.4 | 29.0 |
| Extended Day-Before/After School During Regular School Year | 29.1 | 30.6 | 36.2 |
| Tutorial Programs During School Day | 45.7 | 37.3 | 36.6 |
| Alternative Education Programs | 17.6 | 26.9 | 32.5 |
| Extended School Year/ Summer School | 43.9 | 44.8 | 43.3 |
| Other Arrangements | 7.5 | 9.1 | 10.1 |

It is clear that many different arrangements are employed in delivering compensatory services. As opposed to the approaches described in the previous table, however, there are discernible differences among the arrangements selected by campuses serving different grade spans. For example, an aide in the classroom was reported as an arrangement used by 55 percent of the elementary campuses and only 29 percent of the high school campuses. An additional finding related to instructional strategies but not reported in this table is that 8.3 percent of all students enrolled in compensatory programs in grades 9-12 are in courses resulting in no credit or local credit only.

## Dual Service

Another question included in the campus data collection instrument concerned the percentage of students receiving dual service; that is, the percentage of students enrolled in more than one compensatory program at a time. For this question only, special language programs, such as bilingual or English as a second language, were to be considered compensatory programs. Overall, 37.3 percent of the students in compensatory programs are being served in more than one program. The table below indicates the percentage of campuses by categories of the percentage of students being served in more than one compensatory program. Table 9 may be read, for example, on 55.9 percent of the campuses in the sample, less than 20 percent of the students are receiving dual service.

TABLE 9
PERCENT OF CAMPUSES WITH INDICATED PERCENT
OF STUDENTS RECEIVING DUAL SERVICE
FOR ALL DISTRICTS IN THE SAMPLE

| PERCENT OF STUDENTS IN DUAL SERVICE | PERCENT OF CAMPUSES |
|---|---|
| >80 | 13.7 |
| 60-79 | 6.4 |
| 40-59 | 10.5 |
| 30-39 | 5.6 |
| 20-29 | 7.9 |
| <20 | 55.9 |

It is apparent that on a majority of campuses, less than 20 percent of the students are receiving dual service. Table 10 presents the percentages of students receiving dual service by the district ADA categories, the percentage of minority enrollment, and the percentage of low income students. Although these characteristics reflect district demographics rather than those of individual campuses, an analysis comparing the percent of low income students with the free/reduced price lunch count, derived directly from the campus questionnaires, indicated a substantial correspondence between campus and district low income descriptors. The categories used in this three-part table and throughout the remainder of this document are taken from the Agency's Analyze procedure.

TABLE 10
PERCENT OF COMPENSATORY STUDENTS RECEIVING DUAL SERVICE
BY ANALYZE CATEGORY

| | PERCENT OF STUDENTS RECEIVING MORE THAN ONE TYPE OF SUPPLEMENTARY INSTRUCTION |
|---|---|
| **ADA Groupings** | |
| More than 50,000 | 42.7 |
| 25,000 -49,999 | 23.0 |
| 10,000 -24,999 | 30.5 |
| 5,000 - 9,999 | 36.9 |
| 3,000 - 4,999 | 32.6 |
| 1,600 - 2,999 | 34.1 |
| 1,000 - 1,599 | 38.5 |
| 500 - 999 | 40.0 |
| Less than 500 | 39.5 |
| **Minority Percent** | |
| Less than 5% | 29.3 |
| 5% but Less than 10% | 32.1 |
| 10% but Less than 20% | 31.4 |
| 20% but Less than 30% | 31.3 |
| 30% but Less than 50% | 37.0 |
| 50% or More | 49.7 |
| **Percent Low Income** | |
| Less than 20% | 22.5 |
| 20% but Less than 30% | 29.9 |
| 30% but Less than 40% | 35.3 |
| 40% but Less than 60% | 39.8 |
| 60% but Less than 80% | 52.8 |
| 80% or More | 62.4 |

As may be seen in Table 10, the percent of students enrolled in more than one program ranges from 23.0 to 42.7 across the ADA categories, with campuses in the largest and second smallest districts using this approach more than those in any other category. The second section of this table indicates a substantial increase in dual service when the percent minority exceeds 50 percent. Much of this increase is probably due to dual service in special language programs. Separate analyses examining the percentages of Black and Hispanic students confirmed this hypothesis. Although the percent of students receiving dual service increases as the percentages of Black and Hispanic students increases, the rate of increase for dual service is much greater across Hispanic categories.

The most interesting results are in the third part of the table where percent low income is categorized. There is a direct increase in

percent dual service as percent low income increases. The question of interest is whether students in low income districts receive more service because they are from low income families or because more fiscal resources are available with a higher percentage of low income students. The funding availability issue is of interest, since percent low income determines both federal and state compensatory funding levels.

## PERFORMANCE

As previously noted, the performance of students in compensatory programs may be measured in a variety of ways. For the Campus section of the report, three performance measures will be discussed: test scores, program exit rates, and promotion rates. Although the campus questionnaires did not request test score information, the federal Chapter 1 and TEAMS databases provide some insight into performance on both the campus and district levels. The first portion of this section discusses these test results.

The portions examining exit and promotion rates are derived from data obtained from the campus questionnaires. Each of these performance measures will be examined by grade span, due to the diverse nature of the instructional programs within grade spans. Within each of these groupings, performance by demographic categories and by instructional strategies will be examined. In addition, the examination of exit rates is supplemented by information from two dissertation studies conducted at the University of Texas at Austin.

### TEST SCORES

There are two primary sources of test score data for compensatory students: TEAMS summary information and achievement test data from the annual federal reporting for Chapter 1. Although neither of these sources are directly associated with this study, these data are integrated into the report to expand and strengthen the discussion.

#### Federal Chapter 1

Tables 11 and 12 present data reported by grade level with number of participants, numbers tested, and reading and mathematics gain scores from pretest to posttest reported in normal curve equivalents (NCEs). The NCE reporting metric was established to allow computation of performance throughout the scoring range, and it is a standard score. The reading and mathematics NCE gain scores may, however, be thought of as roughly equivalent to percentile gains for interpretive purposes. For example, students who demonstrate a one NCE gain have increased their percentile standing by approximately one point. The majority of the gain scores used in the calculations of these averages represent a change in student status over a one year time period. Tables 11 and 12 indicate that the majority of Chapter 1 students are in the elementary grade levels. Given the distribution of students served, it is probable that Chapter 1 is also supporting seventh and eighth grade reading improvement programs.

TABLE 11
FEDERAL CHAPTER 1
1986-87 PUBLIC READING ACHIEVEMENT DATA

| GRADE LEVEL | NUMBER OF PARTICIPANTS | NUMBER WITH PREPOST SCORES | NCE GAIN |
|---|---|---|---|
| 2 | 38,072 | 23,385 | 2.0 |
| 3 | 37,577 | 26,481 | 3.3 |
| 4 | 34,902 | 25,166 | 4.0 |
| 5 | 32,418 | 23,209 | 3.3 |
| 6 | 20,080 | 14,473 | 3.1 |
| 7 | 13,684 | 10,063 | 3.1 |
| 8 | 12,512 | 8,775 | 1.5 |
| 9 | 3,583 | 2,358 | 2.5 |
| 10 | 2,219 | 1,500 | 1.8 |
| 11 | 1,347 | 866 | 2.0 |
| 12 | 861 | 455 | 2.3 |

TABLE 12
FEDERAL CHAPTER 1
1986-87 PUBLIC MATHEMATICS ACHIEVEMENT DATA

| GRADE LEVEL | NUMBER OF PARTICIPANTS | NUMBER WITH PREPOST SCORES | NCE GAIN |
|---|---|---|---|
| 2 | 12,151 | 8,076 | 7.9 |
| 3 | 13,366 | 9,511 | 6.2 |
| 4 | 14,495 | 10,121 | 5.3 |
| 5 | 13,880 | 10,111 | 5.7 |
| 6 | 8,038 | 5,516 | 4.3 |
| 7 | 5,782 | 4,304 | 5.8 |
| 8 | 5,294 | 3,539 | 1.8 |
| 9 | 2,115 | 1,184 | 5.8 |
| 10 | 1,541 | 855 | 3.0 |
| 11 | 907 | 544 | 5.9 |
| 12 | 529 | 273 | 2.6 |

As shown, the gain scores are moderate and generally diminish as the students become older. This is normally attributed to the assumption that students "well entrenched" in low performance are very difficult to remediate. By definition, positive gain scores represent a change from a previous NCE or percentile standing to a higher NCE. It is commonly assumed in examining NCE gains that students receiving only regular instruction will maintain, but not increase their original percentile standing. In other words, although they increase their knowledge base, it is at a rate which only keeps them "even" with the rest of their peer group. By adding extra instruction, the students are expected to gain extra knowledge and thus increase their percentile standing. This assumption means that a gain score of zero is equivalent to "holding their own," and therefore any positive NCE gain indicates a positive program effect.

In actuality, a reasonable expectation for most compensatory students would be a loss of percentile rank. If this expectation is correct, then the indicated gain scores may underestimate actual growth. In summary, it appears that students in the Chapter 1 program are achieving gains in percentile standing, but data are not yet available that will adequately reflect the longevity of those gains. It is expected that students in programs similar to Chapter 1, but funded by state compensatory or local monies, would experience similar growth.

## Texas Educational Assessment of Minimum Skills

The publication entitled, *1987 Texas Educational Assessment of Minimum Skills, Student Performance Results 1987, Volume I, Statewide and Regional Results*, provides a complete presentation of results from the TEAMS testing program. The third grade section of the report notes that Chapter 1 students are "closing the gap" in performance on the test as measured by scaled score growth. Although this statement indicates a positive program effect, the data collected in Phase II do not allow conclusions to be made regarding this effect. Table 13 provides TEAMS scaled scores for groups included in this report.

TABLE 13
TEAMS SCALED SCORES BY PROGRAM

| | MATHEMATICS | READING | WRITING |
|---|---|---|---|
| Free or Reduced Price Meal Program (low income) | | | |
| Participants | 792 | 747 | 715 |
| Nonparticipants | 851 | 824 | 775 |
| Chapter 1 Regular Program (educationally disadvantaged) | | | |
| Participants | 760 | 697 | 674 |
| Nonparticipants | 839 | 810 | 765 |

The average scaled scores indicate that compensatory students and free/reduced price lunch participants are not the same. The students in the free/reduced price lunch program have much higher average scaled scores than the Chapter 1 students, especially in reading and writing. According to the the *National Assessment of Chapter 1* (1987), the latest national figures indicate that approximately 42 percent of the Chapter 1 students are also from low income households, although these data are from 1976 and are probably slightly low. Considering that there is probably substantial overlap between the students in these two categories, the average scaled score difference is quite remarkable. It might be safely assumed that the difference would be even greater if students who are in Chapter 1 and are not eligible for free/reduced price lunch were compared to students eligible for free/reduced price lunch and not in Chapter 1. Again, the discrepancy between eligibility for free/reduced price lunch and need for compensatory services raises

questions regarding the practice of basing funding solely on the numbers of free/reduced price lunch students within a district.

## EXIT RATES FROM THE COMPENSATORY PROGRAM

Although compensatory programs have traditionally used test scores as a measure of success, there are other measures which are of equal importance. The Chapter 1 program's local district evaluation requirements differentiates between sustained and longitudinal gains. The difference between these two measures rests on the distinction between students remaining in the program (longitudinal) and those who have exited (sustained) before a required measure of performance after at least a one year interval. Although these measures are submitted as a portion of the required local evaluation, no formal analysis of the data is available at this time.

Certainly, one of the goals of compensatory programs is to correct educational deficiencies and return the student to the regular program. Ideally, the student never again needs compensatory services. Although it was impractical to request campus-level information on recidivism, discussion in the student-specific section of this report will examine this issue.

Four different types of "exit" rates will be examined in this report: (1) exit from grade levels K-5 compensatory programs, (2) exit from seventh and eighth grade reading improvement instruction, (3) exit from ninth grade correlated language arts classes, and (4) exit from remediation for students failing the eleventh grade TEAMS exit-level test. Findings from two doctoral dissertations conducted by graduate students at the University of Texas will be used as supplementary data sources for these discussions. Exit rates for campuses in districts with less than 1,000 ADA were not collected in order to reduce data collection demands for very small districts.

The purpose of this analysis is to help establish reasonable expectations for performance. These expectations will then allow the administrators of campuses and districts to set goals which meet or exceed these standards. Given possible variations between campus and district descriptors and the exclusion of some campuses through nonreporting, the identification of specific campuses which are performing below expectation is not appropriate, since data were not obtained from all campuses.

### Grade Levels Kindergarten Through Five
### Compensatory Program Exit Rates

Exit rates were collected for those grade levels where the TEAMS test is given (grades 1, 3, and 5) and kindergarten. Data for the kindergarten level were included, since instruction received at this level may be especially critical for the successful transition of compensatory students to regular grade levels.

Demographic Categories.

Table 14 presents the mean exit rates for the four grade levels. Average exit rates are presented for campuses within specific district categories. An average, however, does not mean that every campus or district within a category exhibits this performance. In fact, even within categories with small numbers of districts, there is considerable variance from this mean performance. In addition, the types of students on a particular campus may differ from those expected according to the district's demographic data. On the other hand, an analysis performed using free/reduced price lunch data directly reported for campuses closely compares to district-level information, and this consistency tends to negate the argument for extreme discrepancies between campus and district demographics. A decision was made to present only selected portions of the entire Analyze tables in the interest of reasonable document length and because not all categorical presentations display considerable variation among the categories. Complete analysis tables are available from the Agency.

TABLE 14
MEAN PERCENT OF STUDENT EXIT RATES
BY GRADE LEVEL FOR ANALYZE CATEGORIES

| | GRADE LEVEL | | | |
|---|---|---|---|---|
| | K | 1 | 3 | 5 |
| ADA Groupings | | | | |
| More than 50,000 | 31.6 | 32.0 | 29.2 | 32.2 |
| 25,000 -49,999 | 24.8 | 29.7 | 27.0 | 32.3 |
| 10,000 -24,999 | 33.2 | 36.1 | 29.4 | 35.4 |
| 5,000 - 9,999 | 32.8 | 26.8 | 30.4 | 32.6 |
| 3,000 - 4,999 | 40.8 | 37.5 | 29.4 | 31.4 |
| 1,600 - 2,999 | 39.0 | 37.1 | 28.2 | 28.6 |
| 1,000 - 1,599 | 32.8 | 37.9 | 26.4 | 29.9 |
| Minority Percent | | | | |
| Less than 5% | 38.3 | 52.4 | 40.2 | 25.9 |
| 5% but Less than 10% | 53.3 | 38.4 | 32.7 | 39.9 |
| 10% but Less than 20% | 31.3 | 36.5 | 29.8 | 35.6 |
| 20% but Less than 30% | 36.0 | 33.4 | 27.7 | 35.2 |
| 30% but Less than 50% | 42.1 | 38.6 | 29.9 | 30.6 |
| 50% or More | 30.7 | 32.1 | 23.9 | 25.7 |
| Percent Low Income | | | | |
| Less than 20% | 36.1 | 43.0 | 34.0 | 37.3 |
| 20% but Less than 30% | 33.3 | 34.7 | 31.7 | 32.4 |
| 30% but Less than 40% | 44.9 | 34.9 | 29.2 | 35.8 |
| 40% but Less than 60% | 33.1 | 33.2 | 21.6 | 24.3 |
| 60% but Less than 80% | 36.7 | 38.2 | 27.3 | 27.8 |
| 80% or More | 27.7 | 29.5 | 22.7 | 22.5 |

In general, the data in Table 14 contain several "bumps". Normally, a trend is evident as a change in, for example, scores from one group to another in a linear, steadily increasing or decreasing function. Among these groups, disruptions or bumps exist in the progression of differences between adjacent levels of categorical variables. However, the categorical boundaries may contribute to the fluctuations in the data, since these boundaries were selected using structural, political, and other considerations not related to linear divisions. Trends rarely are perfectly smooth, especially with a relatively small number of observations. Even lacking completely smooth linear transitions, several patterns are quite evident among the data presented in Table 14.

Although the ADA categories in Table 14 exhibit considerable variation, there is no linear trend suggesting that exit rates differ systematically by district size. However, there does appear to be a trend evident in the next two portions of Table 14. Exit rates generally decrease as the percent minority and low income increase. Furthermore, these results were verified by analysis using the free/reduced price lunch data obtained directly from the campus questionnaires.

Low socioeconomic status and deficiency of the early childhood experiences critical to initial success in school have been found to be highly correlated in many studies. Because the stated purpose of compensatory programs is to remediate educational deficiencies, a narrowing of the range of exit rates among the various low income categories over time might be expected. That is, there should be little difference in exit rates between the lowest and highest low income categories. In other words, it might be expected that compensatory programs would reduce the effects of early deprivation. Although the data may tend to confirm such an effect, data collection activities over several years will be required to fully investigate this hypothesis.

Instructional Strategies.

Exit rates were also examined by the percent of students receiving "dual" service. Dual service is defined as enrollment in more than one compensatory program during a school year. Although the relationship is not perfectly linear, it is apparent that the higher the percentage of students receiving dual service, the lower the exit rate.

TABLE 15
MEAN PERCENT OF STUDENTS EXITING BY PERCENT OF STUDENTS RECEIVING MORE THAN ONE TYPE OF SUPPLEMENTARY INSTRUCTION

| PERCENT RECEIVING DUAL SERVICE | GRADE LEVEL K MEAN % | 1 MEAN % | 3 MEAN % | 5 MEAN % |
|---|---|---|---|---|
| <20 | 32.95 | 37.41 | 30.27 | 36.58 |
| 20-29 | 39.60 | 33.94 | 25.99 | 28.06 |
| 30-39 | 39.03 | 28.06 | 28.52 | 32.76 |
| 40-59 | 27.90 | 28.98 | 23.91 | 27.45 |
| 60-79 | 26.67 | 25.00 | 23.67 | 29.27 |
| >80% | 29.35 | 33.13 | 25.82 | 26.03 |

There are at least two possible explanations for this finding. One is that students who most urgently need service are targeted for more than one form of support, indicating that lower exit rates reflect greater need. Lower exit rates may also imply that dual service is not an especially effective strategy. In fact, there are many possible explanations for lower exit rates, such as the fact that there may be a lack of coordination between the special programs.

The exit rates associated with specific instructional strategies were also examined. Although these numbers indicate general associations, it is impossible to directly associate individual instructional strategies with particular performance rates because campus contacts were instructed to respond by checking as many strategies as were used on the campus. As might be expected, several strategies are employed by campuses in order to more effectively serve the individual needs of students.

TABLE 16
MEAN PERCENT OF STUDENTS EXITING PER GRADE
BY INSTRUCTIONAL STRATEGY

| | GRADE LEVEL | | | |
|---|---|---|---|---|
| | K | 1 | 3 | 5 |
| | MEAN % | MEAN % | MEAN % | MEAN % |
| Aide in Class | 31.36 | 31.29 | 27.54 | 31.39 |
| Basic Skills Instruction (full-day) | 32.10 | 32.79 | 28.75 | 30.96 |
| Send In | 33.28 | 34.42 | 29.03 | 31.79 |
| Pull Out | 33.40 | 33.96 | 28.73 | 34.99 |
| Computer-oriented Instruction (in classroom) | 26.17 | 32.14 | 26.76 | 28.69 |
| Lab Setting with Computers | 29.42 | 34.39 | 28.84 | 33.48 |
| Lab Setting without Computers | 30.38 | 33.75 | 25.18 | 36.92 |
| Extended Day-Before/After School During Regular School Year | 29.19 | 32.00 | 26.92 | 33.07 |
| Tutorial Programs During School Day | 33.62 | 35.76 | 29.82 | 30.41 |
| Individualized Progress | 30.82 | 32.61 | 28.44 | 32.80 |
| Extended School Year/Summer School | 26.68 | 30.60 | 26.29 | 28.81 |
| Alternative Education Programs | 34.67 | 32.75 | 30.28 | 32.14 |
| Mastery Learning | 30.24 | 32.83 | 28.85 | 32.69 |
| Drill and Practice | 30.69 | 33.06 | 28.26 | 32.60 |
| Reduced Instructor/Student Ratios | 30.56 | 32.95 | 28.43 | 33.26 |
| Self-paced Instruction | 31.41 | 33.65 | 29.09 | 32.38 |
| Study Skills | 29.76 | 32.10 | 27.68 | 31.50 |
| Test-taking Skills | 28.74 | 32.89 | 27.44 | 31.46 |
| Peer/Cross-age Tutoring | 33.77 | 33.79 | 28.07 | 28.74 |
| Team Teaching | 28.87 | 29.73 | 28.52 | 30.06 |
| Grouping Heterogeneously | 31.83 | 34.36 | 29.39 | 32.06 |
| Grouping Homogeneously | 29.07 | 32.40 | 27.90 | 31.28 |
| Additional Time on Task | 33.50 | 34.22 | 29.70 | 32.91 |
| Other Approaches | 28.64 | 33.07 | 29.01 | 32.17 |
| Other Arrangements | 26.07 | 29.67 | 29.68 | 24.75 |

Table 16 may be interpreted as a probability table. That is, the exit rates presented should not be considered the actual rates associated with specific instructional strategies but as higher or lower rates relative to those of the other strategies. For example, a computerized approach probably will result in a lower exit rate than a mastery learning approach, but the exit rate associated with a kindergarten computer lab, 29.4 percent, would not be the actual exit rate. Thus, the data present ordinal (one is larger than another, but the scaling may not be equal-interval) comparisons among the various strategies. It is obvious, however, that the reporting of multiple strategies by campuses tends to minimize the utility of this table.

Continuous Exit Rates.

The level of exit rates found in this analysis raises an interesting question. Since exit rates are in the range of 30 percent per year, then after four grade levels, the number of students in the program should be small. Almost all of the students would be "remediated," and there would be no need for compensatory education after the fourth grade. As presented earlier, however, the total number of students in compensatory programs declines slowly over the grade levels. Of course, there is some finite number of new students who will be assigned to compensatory programs and some recidivism. However, this number is small compared to the number of students in the program. Why then does the number of students in compensatory education programs decrease at such a slow rate?

A possible explanation can be found in one of the methods used for student identification for these programs, especially in the earlier grade levels. Campuses qualify for Chapter 1 services based on the percentage of students eligible for the free/reduced price lunch program. Within qualified campuses, students are served according to the greatest need, which is typically defined as those with the lowest scores on standardized achievement tests. By selecting from the bottom of the student list and identifying basically the same number of students each year, the overall count will not decline at a substantial rate. One problem with selecting students according to a normative-based measure such as achievement test scores is that by definition, 20 percent of the students will always be below the 20th percentile and therefore eligible for service.

Another difficulty with a normative, "bottom-up" approach is that an individual student's performance may be adequate one year for program exit and yet, through changing standards, be insufficient the next year. Changes in standards may be affected by student mobility, possibly decreasing the numbers of very low performing students, among other causes. Because there is a specific number of students being served each year -- a fiscal quota in effect -- the selection of students may require that higher performing students be served. Thus, a student who had met all expectations might be included again in the compensatory program. Fluctuations in individual student performance is another obvious factor with potential impact upon student identification, especially for students whose performance is marginal, i.e. near the selection standard.

Considering these student selection criteria, the "stability" of the statewide exit rates across grade levels and districts is hardly surprising. Although this discussion was based on Chapter 1 practices, it seems logical that identification activities for similar programs are basically the same. In fact, this procedure is advocated in Texas Education Code, Section §21.557 (c):

> Each school district shall provide a remedial program for any student whose achievement test score is below a standard established by the State Board of Education. A school

district may provide remedial services to any other student it determines would benefit.

The tendency to base student identification on indicators of need for remediation from the TEAMS test may address this issue, since there are specific performance criteria as opposed to "quotas" and normative information.

## Grades 7 and 8 Reading Improvement

Students scoring below the 40th percentile on a nationally normed achievement test in the sixth and seventh grades must be provided supplementary instruction in a reading improvement program in grades 7 and 8. While alternative assessment provisions may change the specifics of this requirement, the normative procedure is the prevailing manner of student placement. The reader should recall the previous discussion on the use of normative information for the purpose of student identification when reviewing the findings for these performance measures.

The information presented in Table 17 is based on data collected for eighth grade students enrolled in reading improvement. This table is presented in a somewhat different format than previous tables. The mean percent of students who were also in seventh grade reading improvement is listed in the first column. The approximate exit rate from the seventh grade course can be calculated by subtracting the values in column one from 100 percent. Since the mean value is 69.1, it can be seen that many of the exit rates from seventh grade reading improvement are in the 30 percent range, similar to those found for lower grade levels. The next column of the table displays the percentage of students in eighth grade reading improvement who are scheduled to be enrolled in ninth grade correlated language arts. Correlated language arts is a substitute for regular English classes, is generally considered a compensatory course, and is eligible for funding under state compensatory rules.

TABLE 17
STATUS OF EIGHTH GRADE READING IMPROVEMENT STUDENTS
IN DISTRICTS WITH MORE THAN 1,000 ADA

| | WERE IN 7TH GRADE READING IMPROVEMENT MEAN % | SCHEDULED FOR 9TH GRADE CLA MEAN % |
|---|---|---|
| State Total | 69.1 | 60.1 |
| ADA Groupings | | |
| More than 50,000 | 68.0 | 41.3 |
| 25,000 -49,999 | 73.5 | 61.9 |
| 10,000 -24,999 | 66.0 | 53.9 |
| 5,000 - 9,999 | 71.1 | 63.7 |
| 3,000 - 4,999 | 73.5 | 65.4 |
| 1,600 - 2,999 | 67.8 | 62.9 |
| 1,000 - 1,599 | 66.4 | 55.6 |
| Minority Percent | | |
| Less than 5% | 56.0 | 43.8 |
| 5% but Less than 10% | 76.4 | 60.2 |
| 10% but Less than 20% | 67.7 | 59.4 |
| 20% but Less than 30% | 67.2 | 55.7 |
| 30% but Less than 50% | 69.9 | 61.9 |
| 50% or More | 69.8 | 63.0 |
| Percent Low Income | | |
| Less than 20% | 65.4 | 56.7 |
| 20% but Less than 30% | 71.8 | 60.7 |
| 30% but Less than 40% | 72.0 | 62.3 |
| 40% but Less than 60% | 66.0 | 60.3 |
| 60% but Less than 80% | 67.5 | 55.7 |
| 80% or More | 76.3 | 67.2 |

Before specifically discussing the three portions of the table, the overall rates, labeled state totals, should be considered. Although the 30 percent exit rate (100 minus the 70 percent who were in seventh grade reading improvement) from seventh to eighth grade is hardly surprising, especially in light of the earlier discussion on student identification, the percent of students scheduled for correlated language arts is hardly encouraging. Students are not specifically identified for this course on the basis of test scores alone as for seventh and eighth grade reading improvement programs. Presumably, students are being counseled, either intentionally or unintentionally, to enroll in this course on the basis of factors other than objective performance. In other words, although the probability that a student will continue in compensatory programs through the seventh grade is approximately 70 percent per year (100 minus the 30 percent exit rate), there is a high probability (60

percent) that students enrolled in eighth grade reading improvement will enter the nonmandatory correlated language arts in ninth grade. These data suggest that course recommendation practices associated with enrolling students in ninth grade correlated language arts should be examined.

While the percentages of seventh grade reading improvement students continuing into eighth grade reading improvement vary only slightly among the ADA groups, this is not the case for the percentages scheduled for ninth grade correlated language arts. The largest districts show a markedly lower percentage scheduled for correlated language arts instruction. Two other ADA categories also show lower percentages for this placement rate, but not nearly as low as the rate for the largest districts. The reason for this difference is not readily apparent.

While not linear, there are trends apparent in the percent minority and percent low income categorical presentations. Table 17 indicates that districts with large percentages of minority and low income students have large percentages of students continuing into eighth grade reading improvement and then into ninth grade correlated language arts. Again, this is hardly encouraging and supports the pattern of directing students into particular course offerings.

Instructional Strategies.

As opposed to some of the other tables documenting instructional strategies, the data for the eighth grade reading improvement classes show some discernible differences among the tabled values. In Table 18, the lower numbers represent success, since higher numbers indicate larger percentages of students continuing in the remedial "track". It is obvious that certain strategies are more productive than others. Moreover, this is evident in spite of the fact that the use of many strategies on any one campus tends to obscure direct relationships between instruction and outcome.

TABLE 18
STATUS OF STUDENTS IN EIGHTH GRADE READING IMPROVEMENT
BY INSTRUCTIONAL STRATEGY

| | PERCENT SCHEDULED FOR 9TH GRADE CLA MEAN % |
|---|---|
| Aide in Class | 58.90 |
| Basic Skills Instruction (full-day) | 64.39 |
| Send In | 61.94 |
| Pull Out | 60.57 |
| Computer-oriented Instruction (in classroom) | 55.71 |
| Lab Setting with Computers | 55.55 |
| Lab Setting without Computers | 47.45 |
| Extended Day-Before/After School During Regular School Year | 55.38 |
| Tutorial Programs During School Day | 53.85 |
| Individualized Progress | 55.13 |
| Extended School Year/Summer School | 59.54 |
| Alternative Education Programs | 58.19 |
| Mastery Learning | 57.36 |
| Drill and Practice | 55.90 |
| Reduced Instructor/Student Ratios | 58.44 |
| Self-paced Instruction | 59.16 |
| Study Skills | 56.89 |
| Test-taking Skills | 56.63 |
| Peer/Cross-age Tutoring | 55.01 |
| Team Teaching | 58.52 |
| Grouping Heterogeneously | 55.78 |
| Grouping Homogeneously | 57.76 |
| Additional Time on Task | 56.45 |
| Other Approaches | 54.87 |
| Other Arrangements | 59.13 |

## Ninth Grade Correlated Language Arts

As noted earlier, ninth grade correlated language arts is a high-school-credit substitute for regular English courses, and it is available at all high school grade levels as correlated language arts (CLA) I-IV. Because of the differences inherent in a high school setting, the questions for this part of the study were developed on the assumption that students are scheduled for either promotion or retention, continuation in CLA, or a switch to regular English, special language instruction, or some other category such as special education. It is further assumed that, starting at this grade level, "scheduled" is not synonymous with "will attend" due to increasing numbers of drop-outs.

It is readily apparent from Table 19 that there is a substantial difference between the outcomes in the very largest districts and the districts in the other categories. A total ninth grade failure rate can be computed by adding the rates of students repeating ninth grade scheduled for CLA and those repeating ninth grade scheduled for a regular English class. For the largest districts this rate is 34.6 percent, while the rates for the remainder of the districts range from 11.1 to 24.2 percent. The majority of these failures (21.5 of 34.6 percent) in the largest districts are those repeating ninth grade CLA. This failure rate alone is quite similar to the combined failure rate of the other ADA categories. While the failure rate for the largest districts is 10 percent higher than for any other category, it mimics the 10 percent fewer students scheduled for CLA for these districts as discussed earlier regarding seventh through eighth grade reading improvement. The significantly greater use of "other" assignments for students in the largest districts is also noteworthy. Significant differences among levels were not apparent in the minority percent categories and were also not evident in the percent low income categories.

One estimate of total exit rate can be calculated by adding the percentages repeating ninth grade but in a regular English class and the percentages scheduled for tenth grade English. This yields a statewide average exit rate of 20.6 percent. This is markedly less than the exit rates found at the lower grade levels in this study. This is especially true, since only 14.1 percent of the ninth grade CLA students both exit the program and are promoted to the tenth grade. While the largest districts exhibited the largest failure rate, it should be noted that they demonstrate the highest total exit rate of 29.6 percent. While a more detailed discussion of promotion rates is deferred until the next section of this report, the study described below adds insight into the issues surrounding ninth grade CLA classes.

A recent doctoral study (Smisko 1987) investigated decisions counter to expectation in the placement of students into either CLA or regular English classes in the tenth grade. Results indicated that three "core" variables most strongly influenced course placement decisions. These variables were standardized achievement test scores, students' previous grades, and students' mastery of the essential elements. This finding is somewhat surprising since one of the primary state-mandated criteria for providing remedial services is student performance on the TEAMS test. Additional findings provided evidence of decisions that could be considered as contrary to expectation. For example, some students who failed the reading portion of the TEAMS test were placed into tenth grade English, while other students who passed the TEAMS were enrolled in CLA. Further analyses indicated that the grades of those students placed into tenth grade English, after failing TEAMS, were lower than those who, having passed TEAMS, were enrolled in CLA. It was concluded that "Decisions to promote students to English were [often] made on the basis of behavioral and other nonacademic factors, such as the student's motivation, the student's or family's preference and opinions

TABLE 19
SCHEDULED 1987-88 STATUS OF 9TH GRADE CORRELATED LANGUAGE ARTS STUDENTS

| | MEAN PERCENTS | | | | | |
|---|---|---|---|---|---|---|
| | REPEAT 9TH GRADE IN CLA | REPEAT 9TH GRADE IN ENGLISH | 10TH GRADE CLA | 10TH GRADE ENGLISH | ESL OR ESOL | OTHER |
| State Totals | 10.7 | 6.5 | 63.0 | 14.1 | 2.8 | 2.9 |
| ADA Groupings | | | | | | |
| Over 50,000 | 21.5 | 13.1 | 33.3 | 16.5 | 5.5 | 10.2 |
| 25,000 -49,999 | 13.7 | 10.5 | 54.8 | 15.8 | 2.9 | 2.4 |
| 10,000 -24,999 | 15.6 | 6.2 | 60.4 | 12.3 | 4.0 | 1.4 |
| 5,000 - 9,999 | 17.7 | 1.6 | 62.6 | 10.1 | 5.8 | 2.1 |
| 3,000 - 4,999 | 13.5 | 9.3 | 58.3 | 12.2 | 3.5 | 3.1 |
| 1,600 - 2,999 | 12.7 | 8.1 | 59.7 | 15.5 | 2.8 | 1.2 |
| 1,000 - 1,599 | 12.4 | 5.8 | 59.7 | 15.1 | 3.4 | 3.5 |
| 500 - 999 | 9.3 | 6.8 | 65.9 | 12.8 | 2.6 | 2.7 |
| Under 500 | 5.8 | 5.3 | 68.2 | 15.7 | 1.3 | 3.7 |
| Minority Percent | | | | | | |
| Under 5% | 12.3 | 11.0 | 65.6 | 10.5 | 0.5 | 0.0 |
| 5% To Under 10% | 13.0 | 6.2 | 67.7 | 10.8 | 1.2 | 1.1 |
| 10% To Under 20% | 14.1 | 6.6 | 61.9 | 15.1 | 1.3 | 0.9 |
| 20% To Under 30% | 14.7 | 5.5 | 60.3 | 15.5 | 2.8 | 1.3 |
| 30% To Under 50% | 13.5 | 7.5 | 59.2 | 13.9 | 2.8 | 3.2 |
| 50% And Over | 14.2 | 7.3 | 54.1 | 13.2 | 7.0 | 4.2 |
| Percent Low Income | | | | | | |
| Under 20% | 12.0 | 5.9 | 69.1 | 11.2 | 0.9 | 0.9 |
| 20% To Under 30% | 18.1 | 6.2 | 60.0 | 10.2 | 3.4 | 2.1 |
| 30% To Under 40% | 11.7 | 7.7 | 57.3 | 19.4 | 2.5 | 1.4 |
| 40% To Under 60% | 12.4 | 8.6 | 55.6 | 15.2 | 2.9 | 5.2 |
| 60% To Under 80% | 11.3 | 8.5 | 52.3 | 17.4 | 8.7 | 1.7 |
| 80% And Over | 18.3 | 4.6 | 52.4 | 9.0 | 11.7 | 4.0 |

of other school staff."

Instructional Strategies.

Table 20, on the next page, presents the relationship among various instructional strategies and scheduled status for ninth grade correlated language arts students. Those students scheduled for English as a second language and English for speakers of other languages (ESL/ESOL) and other percentages were very low and have been deleted for ease of review. However, the percentages are not adjusted for this deletion so the totals in particular sections of the table will not equal 100 percent. Also, percentages in the columns represent duplicated counts and will also not equal 100 percent. The first part of the table contains actual grade/program placement rates associated with various instructional strategies. The second part contains pass/fail rates calculated by combining ninth grade English and CLA (fail) and tenth grade English and CLA (pass). The final two columns present percentages of students scheduled for English and CLA collapsed over grades.

This table allows for comparisons between instructional strategies and the results of using various strategies. Again, the reader should take care in applying these findings and conclusions due to the reporting of multiple strategies by campus. While a detailed discussion of the results presented in Table 20 is inappropriate in this context, two findings should be noted. Referring to the second and third parts of the table where pass/fail and CLA/English rates are presented, attention is brought to the "Send-In" and "Extended Day/Regular School Year" strategies. Although the "Send-In" strategy has the highest fail rate of any strategy, conversely, it has the highest "exit" rate (scheduled for English versus CLA). The strategy of "Extended Day/Regular School Year" has the highest pass rate and a low exit rate. While the differences are not enormous, it is clear that high exit rates are not necessarily related to high promotion rates.

## High School Exit Level TEAMS Remediation

The TEAMS is administered annually to students in odd-numbered grade levels and students in the eleventh grade must pass the test to graduate from high school. A doctoral study conducted by Major (1987) examined the period between the October administration and the May retest for high school juniors failing portions of the test. Districts are required by state law to provide remediation to students failing the eleventh grade exit exam. For the purposes of this study, however, only language arts failures were considered.

With the assistance of the Division of Student Assessment at the Texas Education Agency, data were generated to provide a measure of the remediation of students failing the exit-level TEAMS. There are three major classifications of students taking the test: those who pass, those who fail, and those who do not take the test. For students not retaking

TABLE 20

SCHEDULED 1987-88 STATUS OF 9TH GRADE CORRELATED LANGUAGE ARTS STUDENTS BY INSTRUCTIONAL STRATEGY

| | MEAN PERCENTS | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | REPEAT 9TH GRADE IN CLA | REPEAT 9TH GRADE IN ENGLISH | 10TH GRADE CLA | 10TH GRADE ENGLISH | PASS | FAIL | CLA | ENGLISH |
| Aide in Class | 14.65 | 8.02 | 50.93 | 15.52 | 66.5 | 22.7 | 65.6 | 23.5 |
| Basic Skills Instruction (full-day) | 15.66 | 10.01 | 47.52 | 16.71 | 64.2 | 25.7 | 63.2 | 26.7 |
| Send In | 16.68 | 11.35 | 43.67 | 17.70 | 61.4 | 28.0 | 60.4 | 29.1 |
| Pull Out | 14.36 | 6.80 | 49.19 | 17.80 | 70.0 | 21.2 | 63.6 | 24.6 |
| Computer-oriented Instruction (in classroom) | 15.23 | 7.54 | 53.97 | 14.61 | 68.6 | 22.8 | 69.2 | 22.2 |
| Lab Setting with Computers | 15.17 | 6.43 | 55.20 | 14.48 | 69.7 | 21.6 | 70.4 | 20.9 |
| Lab Setting without Computers | 15.53 | 8.67 | 51.38 | 15.48 | 66.9 | 24.2 | 66.9 | 24.2 |
| Extended Day-Before/After School During Regular School Year | 16.11 | 6.16 | 56.16 | 15.69 | 71.9 | 22.3 | 72.3 | 21.9 |
| Tutorial Programs During School Day | 14.47 | 9.22 | 48.65 | 15.63 | 64.3 | 23.7 | 63.1 | 24.9 |
| Individualized Progress | 14.75 | 7.56 | 53.43 | 15.64 | 69.1 | 22.3 | 68.2 | 23.2 |
| Extended School Year/Summer School | 13.63 | 8.74 | 56.96 | 13.77 | 70.7 | 22.4 | 70.6 | 22.5 |
| Alternative Education Programs | 13.53 | 7.72 | 55.69 | 16.65 | 72.3 | 21.3 | 69.2 | 24.4 |
| Mastery Learning | 15.29 | 7.36 | 53.56 | 15.99 | 69.6 | 22.7 | 68.9 | 23.4 |
| Drill and Practice | 14.26 | 7.01 | 55.70 | 15.01 | 70.7 | 21.3 | 70.0 | 22.0 |
| Reduced Instructor/Student Ratios | 14.64 | 6.76 | 56.68 | 14.09 | 70.8 | 21.4 | 71.3 | 20.9 |
| Self-paced Instruction | 14.54 | 6.23 | 54.85 | 15.58 | 70.4 | 20.8 | 69.4 | 21.8 |
| Study Skills | 14.31 | 6.54 | 55.01 | 15.36 | 70.4 | 20.9 | 69.3 | 21.9 |
| Test-taking Skills | 13.97 | 6.69 | 55.52 | 15.06 | 70.6 | 20.7 | 69.5 | 21.8 |
| Peer/Cross-age Tutoring | 14.38 | 6.60 | 54.37 | 16.43 | 70.8 | 21.0 | 68.8 | 23.0 |
| Team Teaching | 13.86 | 10.64 | 50.25 | 14.54 | 64.8 | 24.5 | 64.1 | 25.2 |
| Grouping Heterogenously | 14.74 | 8.53 | 56.33 | 13.94 | 70.3 | 23.3 | 71.1 | 22.5 |
| Grouping Homogeneously | 14.37 | 6.35 | 57.72 | 13.78 | 71.5 | 20.7 | 72.1 | 20.1 |
| Additional Time on Task | 14.21 | 7.44 | 53.96 | 16.43 | 70.4 | 21.7 | 68.2 | 23.9 |
| Other Approaches | 10.42 | 7.90 | 53.71 | 15.01 | 68.7 | 18.3 | 64.1 | 22.9 |
| Other Arrangements | 10.91 | 7.86 | 54.36 | 14.81 | 69.2 | 18.8 | 65.3 | 22.7 |

the test, there are three possible explanations: they dropped out of school, they moved to another district, or they chose simply not to take the test. An assumption was made that families with eleventh grade students are relatively unlikely to move; that is, in view of the short time span, there should be relatively little mobility of students in or out of the district. A measure of the percentage of migrant students in a district was used to account for the mobility of this specific population.

Districts scoring at the top and bottom of the range of a "true effective rate" were targeted for further investigation. True effectiveness was defined as the percent passing divided by the total number who initially failed. Follow-up visits and telephone surveys revealed differences among districts on the high and low ends of the scale. Districts which were particularly successful in TEAMS remediation had:

- special classes for failures,
- resource labs with experienced instructors in special education techniques, mathematics, and language arts,
- heavy involvement from counselors both in group sessions and individual settings,
- coordination between regular teachers and special instructors, and
- heavy parental involvement.

Districts which were not particularly successful were characterized by:

- remediation occurring only in regular classrooms,
- limited parental involvement, and
- limited counselor interaction (exemplified by a common quote: "Students were always borderline and not worth the effort").
- remediation through computer-aided instruction

Other interesting practices used by successful districts included allowing special education students to take the test and subsequently reworking individual education plans for students who failed, tape recording passages from textbooks, highlighting passages for individual study, and the use of the Texas Examination of Current Administrators and Teachers (TECAT) study guide to prepare students. The TECAT is a basic skills test of reading and writing which public school teachers must pass to retain certification.

## PROMOTION

Although most would agree that exiting the program is important for students, the goal of being promoted may be even more important. Research results continue to indicate the undesirable effects of retention in the elementary grades. For example, Holmes (1983) concluded,

> If, as is often the purported case today, retention of pupils is accomplished with the intention of improving the academic achievement in the basic skills of these pupils, the research does not seem to support this practice. It seems that retained pupils fall behind during the year that they are retained and spend the rest of their academic careers in [a] vain attempt to catch up. (p.4)

Some articles postulate that the uniformly negative effects of retention in the elementary grades have not been generalized to kindergarten and transition programs because of the nature of these programs. However, Shepard and Smith (1986) found that there were no differences between retained kindergarten students and a control group at the end of first grade on mathematics achievement tests or in teacher ratings of reading achievement, math achievement, social maturity, learner self-concept and attention span. The retained children showed an overall gain on a standardized reading test of five points, which translates into one month, over the control group.

In Texas, studies conducted by school districts have indicated that one of the significant predictors of drop-out rate is whether students are over-age for their grade level. Obviously, not being promoted causes one to be older than other students in the class. The more over-age a student is, the greater the probability of that student leaving school. Thus, the more retentions, the worse the prognosis for completing school.

Furthermore, a study conducted by the Austin Independent School District (1987) concluded:

> Retention has not helped most elementary students overcome their deficit in learning in the long run. It appears best to provide alternative instruction without retaining most low achievers. If retained, students also need special instruction. At the secondary level, minimizing the number of credit units repeated, providing intense remediation in basic skills, and promoting students as soon as possible may decrease the likelihood of dropping out.

Issues regarding promotion will be discussed further in the following presentations.

Demographic Categories.

On the next page, Table 21 presents promotion rates by three Analyze categories. The table is divided into two parts: promotion rates for compensatory students and rates for all other students not in a compensatory program (Others). Regardless of category or grade level, compensatory students are promoted at a significantly lower rate than Others. While this finding is hardly surprising, several of the studies mentioned have demonstrated, at best, a very transitory positive effect for retention success and have generally demonstrated an increased probability of later failure. These conclusions must be carefully considered when retention is used as part of or is the remediation strategy.

It is evident from the ADA portion of the table that promotion rate differences among the different categories are not consistent. There is some tendency for larger districts to promote at slightly lower rates, but the results are mixed.

The pattern in the percent minority table is interesting. For compensatory students in the first grade, promotion rates tend to increase as the percent minority increases. Conversely, this trend is reversed in the fifth grade. For first grade students not in compensatory programs, promotion rates tend to decline as minority percent increases -- opposite of the trend with compensatory students. The third grade promotion rates for Others continues the trend of declining as minority percent increases. Third grade promotion rates for compensatory students are mixed across the varying degrees of minority percent. Finally, fifth grade promotion rates for Others are relatively stable across the percent minority categories.

The percent low income data reflect a pattern similar to the percent minority data. Again, given the high correlation between high minority percentage and low socioeconomic status, these results might be expected. If anything, the trends evident in percent minority are more dramatic. The data derived from the campus questionnaires concerning the percent of free/reduced price lunch students and promotion (not presented) yield results equivalent to those obtained using the district demographics. It is quite difficult to interpret these data and no causal explanation is attempted. A separately conceived study would be required to investigate this phenomenon.

In general, the promotion rates at the first grade are significantly lower for compensatory students and somewhat lower for all other students than promotion rates at the other grade levels. The studies cited earlier, indicating that retention for remediation is less than successful, reflect poorly on this practice. It may be a commonly accepted practice to retain students in the first grade to allow them to "catch up" and be prepared the next year, but considerable evidence makes this practice appear unwarranted.

TABLE 21
MEAN PERCENT OF STUDENTS PROMOTED

| | COMPENSATORY EDUCATION (Grade Level) | | | | ALL OTHER STUDENTS (Grade Level) | | | |
|---|---|---|---|---|---|---|---|---|
| | K | 1 | 3 | 5 | K | 1 | 3 | 5 |
| State Totals | 81.9 | 72.7 | 85.4 | 85.9 | 93.8 | 92.2 | 95.7 | 94.9 |
| ADA Groupings | | | | | | | | |
| Over 50,000 | 79.9 | 64.0 | 77.3 | 82.7 | 91.2 | 84.7 | 88.2 | 88.1 |
| 25,000 -49,999 | 86.2 | 66.9 | 80.0 | 75.0 | 95.2 | 89.3 | 93.2 | 91.7 |
| 10,000 -24,999 | 76.9 | 66.3 | 81.7 | 78.8 | 92.6 | 88.5 | 91.5 | 93.4 |
| 5,000 - 9,999 | 79.1 | 64.3 | 80.3 | 82.9 | 91.5 | 90.3 | 96.5 | 93.0 |
| 3,000 - 4,999 | 88.8 | 69.3 | 88.5 | 86.4 | 94.4 | 89.0 | 94.7 | 94.7 |
| 1,600 - 2,999 | 88.7 | 70.1 | 83.2 | 84.9 | 95.6 | 91.3 | 96.3 | 96.2 |
| 1,000 - 1,599 | 77.8 | 68.5 | 82.6 | 86.5 | 96.0 | 92.9 | 96.9 | 96.4 |
| 500 - 999 | 83.2 | 75.5 | 88.1 | 87.1 | 94.0 | 92.5 | 94.8 | 91.8 |
| Under 500 | 78.6 | 78.0 | 86.5 | 87.5 | 92.5 | 94.6 | 96.9 | 96.7 |
| Minority Percent | | | | | | | | |
| Under 5% | 76.6 | 66.4 | 85.2 | 89.2 | 98.1 | 94.8 | 98.6 | 94.4 |
| 5% To Under 10% | 79.3 | 63.0 | 80.8 | 88.1 | 93.2 | 94.1 | 98.0 | 96.9 |
| 10% To Under 20% | 85.1 | 68.2 | 85.3 | 87.8 | 94.8 | 93.1 | 97.2 | 96.1 |
| 20% To Under 30% | 72.1 | 65.2 | 86.0 | 84.4 | 95.2 | 93.4 | 96.6 | 94.8 |
| 30% To Under 50% | 83.4 | 64.8 | 81.6 | 81.2 | 91.8 | 88.6 | 95.4 | 94.6 |
| 50% And Over | 85.8 | 73.2 | 83.4 | 83.2 | 95.7 | 87.3 | 91.9 | 93.4 |
| Percent Low Income | | | | | | | | |
| Under 20% | 76.0 | 66.1 | 84.9 | 86.4 | 94.1 | 93.4 | 98.1 | 96.0 |
| 20% To Under 30% | 77.5 | 66.8 | 82.4 | 82.5 | 93.8 | 92.8 | 96.3 | 94.8 |
| 30% To Under 40% | 84.4 | 66.2 | 81.2 | 84.5 | 91.7 | 90.4 | 96.1 | 94.1 |
| 40% To Under 60% | 84.1 | 66.2 | 85.4 | 83.8 | 96.5 | 87.4 | 93.7 | 95.1 |
| 60% To Under 80% | 86.1 | 75.1 | 83.4 | 83.7 | 95.8 | 87.2 | 95.2 | 93.7 |
| 80% And Over | 92.2 | 80.6 | 82.7 | 84.3 | 94.4 | 83.7 | 82.7 | 91.4 |

Promotion and Exit Rate Contrast.

To further examine the relationship between promotion and exit decisions, a three part table was created which presents promotion, retention, and placement rates for students remaining in the program, exiting the program, and for all other students. For the purpose of this discussion, placement refers to alternative education programs as defined in 19 TAC §75.195, Alternatives to Social Promotion.

TABLE 22
RELATIONSHIP OF PROMOTION, RETENTION, AND PLACEMENT
TO PROGRAM ENROLLMENT AND EXIT

| | PERCENT OF STUDENTS PROMOTED | | | |
|---|---|---|---|---|
| STUDENT CATEGORY | K | 1 | 3 | 5 |
| Remaining in program | 80.0 | 64.9 | 78.7 | 77.7 |
| Exiting program | 83.2 | 73.8 | 85.0 | 83.8 |
| All other students | 93.6 | 88.7 | 93.0 | 92.8 |

| | PERCENT OF STUDENTS RETAINED | | | |
|---|---|---|---|---|
| STUDENT CATEGORY | K | 1 | 3 | 5 |
| Remaining in program | 11.3 | 25.7 | 8.1 | 7.8 |
| Exiting program | 9.7 | 20.6 | 7.8 | 6.6 |
| All other students | 2.8 | 7.8 | 2.5 | 2.4 |

| | PERCENT OF STUDENTS PLACED | | | |
|---|---|---|---|---|
| STUDENT CATEGORY | K | 1 | 3 | 5 |
| Remaining in program | 8.8 | 9.4 | 13.2 | 14.5 |
| Exiting program | 7.0 | 5.6 | 7.2 | 9.6 |
| All other students | 3.5 | 3.6 | 4.6 | 5.3 |

The data in this table indicate noticeable differences among the promotion, retention, and placement patterns for students exiting from and remaining in compensatory programs and all other students. However, the patterns for students exiting the compensatory programs more closely resemble patterns for students remaining in the program than those for all other students. Three findings, evident in this table, are particularly interesting.

- By examining the second block of the table it is clear that a considerable number of students are exited from the program in the first grade, yet retained. This might suggest that retention is being used in place of further remediation efforts. The use of retention as a means of remediation has been seriously questioned in a number of studies (see discussion on p.52).

- The second block of the table also shows that 7.8 percent of all other first grade students are retained. This is a comparatively high percentage of retention, especially for

students not specifically identified as compensatory. Again, questions regarding the efficacy of retention must be raised.

- The third block indicates that 5.6 to 9.6 percent of the students exiting the program are placed in the next grade level, which implies that they did not perform the work at the previous grade level. If students being placed in the next grade level are exiting the compensatory program, then they are not being remediated through compensatory programs. Such a practice would appear to be questionable.

Instructional Strategies.

The results in Table 23 should be compared with those found in Table 15 (page 40) where exit rates are displayed. In Table 15, there is a tendency for higher percentages of students receiving dual service to be associated with lower exit rates. This pattern is not repeated when promotion rates are considered as seen in Table 23 below. Results for the kindergarten, third, and fifth grade indicate no substantial promotion benefit or detriment associated with percent dual service. The first grade results, in fact, are opposite from those found earlier in that a higher percent dual service is associated with greater promotion. As has been discussed previously, strategies related to high exit rates may not be related to promotion.

TABLE 23
PROMOTION RATES FOR STUDENTS: BY PERCENT RECEIVING DUAL SERVICE

| PERCENT DUAL SERVICE | GRADE LEVEL K | 1 | 3 | 5 |
|---|---|---|---|---|
| <20 | 80.0 | 64.7 | 82.1 | 81.4 |
| 20-29 | 78.2 | 67.6 | 82.3 | 80.4 |
| 30-39 | 86.4 | 70.7 | 81.9 | 77.9 |
| 40-59 | 83.4 | 71.8 | 81.5 | 83.0 |
| 60-79 | 80.3 | 70.7 | 76.2 | 80.0 |
| >80 | 86.2 | 72.6 | 79.4 | 82.0 |

Table 24, on the next page, displays promotion rates by instructional strategies over grade spans. The only remarkable finding is that there are very small differences among the tabled rates. Recalling the earlier discussion concerning instructional strategies, there is a strong probability that the data collected on the campus level are too diffuse to allow meaningful comparisons. The examination of instructional strategies in the student data section is more useful.

TABLE 24
MEAN PERCENT OF STUDENTS PROMOTED BY GRADE
BY INSTRUCTIONAL STRATEGY

| | GRADE LEVEL | | | |
|---|---|---|---|---|
| | K | 1 | 3 | 5 |
| | MEAN % | MEAN % | MEAN % | MEAN % |
| Aide in Class | 82.87 | 69.93 | 82.29 | 82.60 |
| Basic Skills Instruction (full-day) | 81.41 | 68.27 | 81.64 | 82.33 |
| Send In | 82.74 | 67.02 | 81.78 | 79.96 |
| Pull Out | 81.52 | 67.30 | 81.55 | 80.48 |
| Computer-oriented Instruction (in classroom) | 80.71 | 68.07 | 80.81 | 81.12 |
| Lab Setting with Computers | 82.52 | 68.08 | 80.22 | 80.55 |
| Lab Setting without Computers | 85.63 | 69.05 | 80.74 | 80.74 |
| Extended Day-Before/After School During Regular School Year | 84.01 | 68.80 | 80.45 | 80.56 |
| Tutorial Programs During School Day | 78.28 | 68.20 | 79.91 | 80.80 |
| Individualized Progress | 83.71 | 69.45 | 81.89 | 81.00 |
| Extended School Year/Summer School | 79.95 | 68.38 | 77.86 | 78.69 |
| Alternative Education Programs | 76.82 | 68.11 | 80.64 | 79.78 |
| Mastery Learning | 82.47 | 68.00 | 80.94 | 81.28 |
| Drill and Practice | 82.36 | 68.00 | 81.62 | 81.43 |
| Reduced Instructor/Student Ratios | 81.45 | 67.69 | 81.87 | 81.60 |
| Self-paced Instruction | 82.68 | 70.03 | 81.96 | 81.42 |
| Study Skills | 82.42 | 69.18 | 81.83 | 81.42 |
| Test-taking Skills | 81.69 | 68.10 | 80.45 | 80.37 |
| Peer/Cross-age Tutoring | 79.36 | 69.61 | 81.93 | 81.24 |
| Team Teaching | 77.50 | 68.24 | 81.25 | 81.27 |
| Grouping Heterogeneously | 79.29 | 67.15 | 80.16 | 79.65 |
| Grouping Homogeneously | 82.87 | 66.95 | 81.71 | 81.17 |
| Additional Time on Task | 79.65 | 67.18 | 81.29 | 81.44 |
| Other Approaches | 77.45 | 66.66 | 82.17 | 80.43 |
| Other Arrangements | 69.39 | 66.45 | 81.93 | 79.65 |

Grades 7 - 12

Because patterns similar to those in the previous tables were found within the seventh grade data, only one table will be presented. Table 25 indicates the continuation of the trend for students in seventh grade reading improvement to be retained and placed, rather than promoted, relative to other students. In the remaining grade levels, no specific data were collected addressing overall promotion rates. However, some selected promotion information was included in the discussion of exit rates for ninth grade students enrolled in correlated language arts.

TABLE 25
MEAN PERCENT OF SEVENTH GRADE STUDENTS
PROMOTED, RETAINED, AND PLACED

| | MEAN PERCENT OF STUDENTS | | |
|---|---|---|---|
| | PROMOTED | RETAINED | PLACED |
| Reading Improvement | 79.6 | 11.1 | 9.3 |
| All Other Students | 91.1 | 5.0 | 3.9 |

The next section of the findings will present results from the separate questionnaire requesting data at the student level. Many of the issues raised in the campus section will be addressed in slightly different context in the examination of student data.

## STUDENT INFORMATION

### DESCRIPTION

While the intent of data collection at the campus level was to obtain information on all campuses, the student section reports on data collected on a sample of students from districts offering compensatory programs. As noted earlier, this sample of students was not specifically intended to be representative of the general compensatory student population. Rather, it was to be composed of compensatory students who were good examples of either successes or failures. Furthermore, there are indications that the sample allows generalization of the findings to the population of compensatory students as a whole. After a brief overview of the characteristics of the sample obtained and a discussion of performance measures, findings will be presented in nine segments representing the various categories of data collected.

### SAMPLE CHARACTERISTICS

#### District Characteristics

As discussed in the Evaluation Strategy chapter, each student questionnaire contained a code that allowed general identification of district size, percent minority, wealth, and geographic region. This code was purposefully constructed to be less specific than those used in the Analyze procedure in order to ensure district anonymity. (See Appendix A for the coding format.) The relatively small number of responses from the largest districts, as shown in Table 26, presented a potential problem in terms of the utility of the results. However, because this is a student-based study with specific student demographics and individual instructional methodologies, district characteristics are somewhat irrelevant. This follows from the premise that a "low-performing student is a low-performing student" (i.e., matched on individual characteristics) regardless of the location of an individual's school district. Furthermore, as will be discussed later, the district size was not a very powerful predictor of student success.

TABLE 26
NUMBER OF STUDENTS IN SAMPLE
WITHIN PARTICULAR DISTRICT CATEGORIES

| ADA | NUMBER OF STUDENTS | PERCENT OF STUDENTS* |
|---|---|---|
| >25,000 | 218 | 5.2 |
| 10,000 -24,999 | 594 | 14.0 |
| 5,000 - 9,999 | 266 | 6.3 |
| 3,000 - 4,999 | 703 | 16.6 |
| 1,000 - 2,999 | 835 | 19.7 |
| <1,000 | 1,613 | 38.1 |

| PERCENT MINORITY | NUMBER OF STUDENTS | PERCENT OF STUDENTS |
|---|---|---|
| <13.5 | 1,068 | 25.2 |
| 13.5 to 37.4 | 1,412 | 33.4 |
| >37.4 | 1,753 | 41.4 |

| WEALTH PER STUDENT | NUMBER OF STUDENTS | PERCENT OF STUDENTS |
|---|---|---|
| <$135,042 | 1,400 | 33.2 |
| $135,042-$246,052 | 1,673 | 39.7 |
| >$246,052 | 1,144 | 27.1 |

| GEOGRAPHIC AREA | NUMBER OF STUDENTS | PERCENT OF STUDENTS |
|---|---|---|
| Super Region 1 | 806 | 19.0 |
| Super Region 2 | 1,085 | 25.6 |
| Super Region 3 | 927 | 21.9 |
| Super Region 4 | 742 | 17.5 |
| Super Region 5 | 674 | 15.9 |

* Percents may not add to 100 due to rounding.

## Student Characteristics

Although the student demographic data will be examined in depth in the discussion of performance data, the number and percent of students within selected categories are presented for review. Two of these categories, dual service and free/reduced price lunch, are similar to the categories presented in the campus section. The tabled percentages of students in the categories for these two variables are very similar to those obtained from the campus-based data collections, indicating the applicability of the student data to the general population of compensatory students. The six-part table below and the remainder of tables in this section will differ by total number of students included due to the lack of response to specific items on individual student questionnaires.

TABLE 27
NUMBER OF STUDENTS IN VARIOUS DEMOGRAPHIC CATEGORIES

| GRADE LEVEL | NUMBER OF STUDENTS | PERCENT OF STUDENTS* |
|---|---|---|
| 1 | 309 | 6.8 |
| 3 | 769 | 16.8 |
| 5 | 770 | 16.9 |
| 7 | 715 | 15.7 |
| 9 | 732 | 16.0 |
| 11 | 367 | 8.0 |
| Other** | 905 | 19.8 |

| SEX | NUMBER OF STUDENTS | PERCENT OF STUDENTS |
|---|---|---|
| Male | 2,407 | 57.8 |
| Female | 1,755 | 42.2 |

| MIGRANT | NUMBER OF STUDENTS | PERCENT OF STUDENTS |
|---|---|---|
| Yes | 369 | 8.3 |
| No | 4,102 | 91.7 |

| YEARS IN DISTRICT | NUMBER OF STUDENTS | PERCENT OF STUDENTS |
|---|---|---|
| <1 | 60 | 1.3 |
| 1 | 251 | 5.6 |
| 2-3 | 1,119 | 24.8 |
| 4-5 | 1,092 | 24.2 |
| 6 or more | 1,999 | 44.2 |

| DUAL SERVICE | NUMBER OF STUDENTS | PERCENT OF STUDENTS |
|---|---|---|
| Yes | 1,928 | 42.7 |
| No | 2,590 | 57.3 |

| FREE/REDUCED LUNCH | NUMBER OF STUDENTS | PERCENT OF STUDENTS |
|---|---|---|
| Yes | 2,468 | 55.7 |
| No | 1,965 | 44.3 |

* Percents may not add to 100 due to rounding.

** Although students were requested from odd-numbered grade levels, "Other" represents students from even-numbered and no response grade levels.

Although free/reduced price lunch status is not objectively related to success, relationships of selected variables to free/reduced price lunch status are presented, since funding is based on counts of free/reduced-price-lunch-eligible students. However, it is important to note that all of these analyses are specific to students eligible for free/reduced

price lunch and other students in compensatory education programs not to the general population of free/reduced-price-lunch-eligible students.

Analyses indicate that free/reduced-price-lunch-eligible students do not miss more days of school than do other students, they are not more likely to have been in the district for a longer or shorter period of time, and they are not more likely to have been in a different number of schools than the other students. Table 28, however, indicates that there is a tendency for free/reduced price lunch students to remain in compensatory programs for longer periods of time.

TABLE 28
PERCENT OF FREE/REDUCED PRICE LUNCH STUDENTS
BY YEARS IN COMPENSATORY PROGRAMS

| ELIGIBLE FOR FREE/ REDUCED PRICE LUNCH | NUMBER OF YEARS IN THE PROGRAM | | | | |
|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 or More |
| Yes | 24% | 27% | 20% | 11% | 18% |
| No | 35% | 31% | 18% | 7% | 10% |

The following table indicates differences between eligible and noneligible free/reduced price lunch students in the compensatory program on objective performance measures. The findings in the table are not necessarily applicable to the overall student population. Data reflecting the free/reduced price lunch status of students performing in the uppermost and lowermost ranges on both the achievement and basic skills tests display quite different percentages. There is a 20 percent greater likelihood that students performing above the 80th percentile on the achievement test are not eligible for the free/reduced price lunch program. Moreover, there is a 40 percent greater probability that the very lowest performing students are eligible for the free/reduced price lunch program. A similar trend is evident in data from the 1985 Texas Assessment of Basic Skills.

TABLE 29
PERCENT OF FREE/REDUCED PRICE LUNCH (F/RPL) ELIGIBLE STUDENTS IN VARIOUS PERFORMANCE CATEGORIES

Tabled values are the percent of students eligible for free/reduced price lunch and other students for the indicated performance categories on the 1985-86 achievement test and the 1985 Texas Assessment of Basic Skills test.

| | PERFORMANCE MEASURE | | | |
|---|---|---|---|---|
| | Achievement Test F/RPL Eligible | | Basic Skills Test F/RPL Eligible | |
| PERFORMANCE RANGE | Yes | No | Yes | No |
| Achievement >80th %ile<br>Basic Skills >80% mastery | 40% | 60% | 47% | 53% |
| Achievement 60-79th %ile<br>Basic Skills 60-79% mastery | 49% | 51% | 53% | 47% |
| Achievement 40-59th %ile<br>Basic Skills 40-59% mastery | 51% | 49% | 61% | 39% |
| Achievement 20-39th %ile<br>Basic Skills 20-39% mastery | 56% | 44% | 63% | 37% |
| Achievement <20th %ile<br>Basic Skills <20% mastery | 69% | 31% | 71% | 29% |

A final comparison also reflects the differences between these types of students. Of all compensatory students, 56 percent of the students eligible for free/reduced lunch are not involved in extracurricular activities while only 44 percent of the noneligible students do not participate.

## PERFORMANCE

### OBJECTIVE AND SUBJECTIVE PERFORMANCE MEASURES

Performance, and thus success, can be assessed using many different outcome measures. The intent of this study was to collect both subjective and objective measures of success. To that end, each district's contact person was asked to select students according to various criteria including Texas Educational Assessment of Minimum Skills (TEAMS) performance, promotion/retention status, and a subjective rating of success according to the district's own criteria. Student selections, regardless of guidelines, were considered subjective classifications. However, various objective measures of success were also acquired, such as achievement test and TEAMS scores.

Using multiple outcome measures in a single relational equation, although commonly employed, is quite complicated both in analysis and explanation. An alternative approach is to construct a composite measure which can be examined in terms of various educational variables such as student demographics and instructional strategies.

In order to obtain the broadest possible perspective in constructing a composite, the following performance measures were requested for each student:

- English achievement percentile 1986
- English achievement percentile 1987
- 1985 Texas Assessment of Basic Skills percent reading objectives passed
- 1985 Texas Assessment of Basic Skills percent mathematics objectives passed
- 1987 TEAMS percent reading objectives passed
- 1987 TEAMS percent mathematics objectives passed
- English reading grade level
- Promotion/retention/placement data
- Essential element mastery in language arts
- Essential element mastery in mathematics
- Essential element mastery in science
- Essential element mastery in social studies

Preliminary analyses indicated substantial intercorrelation between the various measures of essential element mastery. In other words, students who do well in language arts also tend to do well on the other three measures of essential element mastery. Likewise, there were correlations between individual subtests contained within both the TEAMS and the Texas Assessment of Basic Skills tests. Using only the reading portion of the TEAMS and Texas Assessment of Basic Skills and the essential element mastery for language arts would not seriously impair the quality of information available on individual students. Furthermore, elimination of somewhat redundant measures was expected to simplify the presentation of results. The data on other measures are available on data tapes for those interested in examining more subtle relationships among these variables.

In designing the composite success measure to be used in the analysis, it was assumed that the short-term goal of most compensatory programs is not necessarily for a student to attain a selected performance level (e.g., a particular percentile standing) but rather to increase or maintain their level of achievement or knowledge. Therefore, instead of using a specific performance level as part of the composite score, "change scores" were computed by subtracting current from former performance on both achievement and basic skills measures. Initially, a composite score (Score5) containing the following elements was constructed:

Score5 = Achievement Change + Promotion + Grade Level + Essential Element Mastery + TEAMS Change

The values assigned to these variables are delimited in Table 30. Again, only measures involving reading and language arts were used to allow manageable analysis.

TABLE 30
VALUES OF VARIABLES COMPOSING COMPUTED SUCCESS MEASURE

| VARIABLE | DESCRIPTION | VALUE |
|---|---|---|
| TEAMS Change* | More or same objectives mastered | 1 |
| | Fewer objectives mastered | 2 |
| Achievement Change* | Greater or same percentile | 1 |
| | Percentile loss | 2 |
| Promotion | Promoted | 1 |
| | Retained or placed | 2 |
| Grade Level | Above or on grade level | 1 |
| | Below grade level | 2 |
| Essential Elements | Mastered elements | 1 |
| | Did not master elements | 2 |

* Student performance on TEAMS, Texas Assessment of Basic Skills, and achievement tests were not reported as an actual raw score but as a score within one of five categories.

As incorporated in this success measure, TEAMS change is defined as the change in the number of objectives mastered from the 1985 Texas Assessment of Basic Skills to the 1987 TEAMS test. Because the information on the Texas Assessment of Basic Skills test was not included in more than half of the student questionnaires, a second composite score (Score4) was computed containing all of the elements of Score5 except TEAMS change:

Score4 = Achievement Change + Promotion + Grade Level + Essential Element Mastery

To ascertain the effect of dropping the TEAMS change from the composite score, means, standard deviations, and correlations were calculated

between the computed scores and the subjective measure of success (Success) which was collected on the questionnaire.

TABLE 31
VALUES OF COMPOSITE SCORES AND SUBJECTIVE SUCCESS

| VARIABLE | N | MEAN | STANDARD DEVIATION |
|---|---|---|---|
| Score4 | 3,100 | 5.39 | 1.18 |
| Score5 | 1,686 | 6.59 | 1.27 |
| Success | 4,291 | 1.42 | .49 |

| | PEARSON CORRELATION COEFFICIENTS | | |
|---|---|---|---|
| | Score4 | Score5 | Success |
| Score4 | 1.000 | .939* | .469* |
| Score5 | | 1.000 | .424* |
| Success | | | 1.000 |

* Probability <.05

By examining the table above, it is apparent that although there are fewer students in the Score4 computation than in the Success measure, these numbers are significantly higher than those available for the Score5 measure. In the sample, 1,686 students have both Success and Score5 measures and 3,100 have Success and Score4 measures. Score4 and Score5 are highly correlated (r=.939) which indicates that using Score4 rather than Score5 yields greater numbers of students with little loss of information. The correlation between Score4 and Success is .469 indicating that the objective and subjective measures, although related, reflect somewhat different constructs. Given the high correlation between the measures of success (Score4 and Score5) and the numbers of students deleted due to missing TEAMS change scores, a decision was made to drop the Score5 measure from further consideration.

Table 32 illustrates the relationship between change scores on the basic skills tests and the achievement tests. In this table, students are categorized successful or nonsuccessful based on the computed change scores from two measures -- basic skills tests (TEAMS) and achievement tests. A student included in the Success/Success cell (upper left) increased or maintained their previous level of performance on both types of tests. A student in the upper right cell gained or maintained standing on the achievement test but dropped in performance on the TEAMS test. However, the majority of students either lost or gained on both measures (combined N=1,209). Relatively more students gained on achievement and lost on TEAMS change (N=350) as opposed to the number who gained on TEAMS change and lost on achievement, although these numbers are small compared to the total number who lost or gained on both.

TABLE 32
RELATIONSHIP BETWEEN TEAMS AND ACHIEVEMENT CHANGE SCORES

The top number in each cell is the number of students in that cross-classification. The bottom number is the percent of students in that cross-classification.

| | | TEAMS | |
|---|---|---|---|
| | | Success | Nonsuccess |
| ACHIEVEMENT TEST | Success | 1,106<br>63.0% | 350<br>19.9% |
| | Nonsuccess | 196<br>11.2% | 103<br>5.9% |

Table 33 displays the percent of students in each category of the four-score composite measure of success (Score4). The values of Score4 range from four to eight with low numbers representing success and high numbers representing nonsuccess. The table illustrates that the distribution of computed success scores is relatively homogeneous over grade levels. By examining the row labeled Total, it is apparent that a two-level measure of success (success or nonsuccess) can be constructed by assigning scores of 4 and 5 to success and those of 6 or more to nonsuccess.

TABLE 33
PERCENT OF STUDENTS WITH SELECTED
COMPUTED SUCCESS SCORES BY GRADE LEVEL

| GRADE LEVEL | COMPUTED SCORE VALUES | | | | |
|---|---|---|---|---|---|
| | 4 | 5 | 6 | 7 | 8 |
| 1 | 39.0 | 13.0 | 13.6 | 26.0 | 8.4 |
| 3 | 36.1 | 23.3 | 18.3 | 17.6 | 4.7 |
| 5 | 33.1 | 28.8 | 18.5 | 14.9 | 4.6 |
| 7 | 24.4 | 30.4 | 23.3 | 19.3 | 2.7 |
| 9 | 24.3 | 30.1 | 22.5 | 20.3 | 2.9 |
| 11 | 18.1 | 30.2 | 33.2 | 16.1 | 2.5 |
| TOTAL | 29.5 | 27.3 | 21.1 | 18.2 | 4.0 |

Although consideration was given to selected individual outcomes during the data analysis, the majority of results presented examine the similarities and contrasts between the subjective rating of success and the objective composite success measure.

The discussion of the data will be divided into nine presentation blocks representing various categories from the questionnaire. Not all questionnaire items were included, however, in order to reduce the presentation to a more manageable size.

The contents of the blocks selected for analyses are as follows:

BLOCK 1: Student Performance
BLOCK 2: Student Demographics
BLOCK 3: District Demographics
BLOCK 4: General Program Characteristics
BLOCK 5: Specific Instructional Strategies
BLOCK 6: Teacher Variables
BLOCK 7: Parent Variables
BLOCK 8: Bilingual/ESL Classification
BLOCK 9: Migrant Classification

BLOCK 1: Student Performance

Table 34 presents the percent of students scoring in the various categories of the selected performance measures.

TABLE 34
DISTRIBUTION OF STUDENT PERFORMANCE ON SELECTED TEST MEASURES

A. 1985 TEXAS ASSESSMENT OF BASIC SKILLS READING OBJECTIVES MASTERED

| PERCENTAGE | NUMBER OF STUDENTS | PERCENT OF STUDENTS* |
|---|---|---|
| >80 | 703 | 29.4 |
| 60-79 | 623 | 26.1 |
| 40-59 | 482 | 20.2 |
| 20-39 | 370 | 15.5 |
| <20 | 212 | 8.9 |

B. 1985 TEXAS ASSESSMENT OF BASIC SKILLS MATHEMATICS OBJECTIVES MASTERED

| PERCENTAGE | NUMBER OF STUDENTS | PERCENT OF STUDENTS |
|---|---|---|
| >80 | 817 | 35.3 |
| 60-79 | 621 | 26.8 |
| 40-59 | 487 | 21.0 |
| 20-39 | 248 | 10.7 |
| <20 | 141 | 6.1 |

C. 1987 TEAMS READING OBJECTIVES MASTERED

| PERCENTAGE | NUMBER OF STUDENTS | PERCENT OF STUDENTS |
|---|---|---|
| >80 | 1,214 | 31.1 |
| 60-79 | 1,074 | 27.5 |
| 40-59 | 793 | 20.3 |
| 20-39 | 495 | 12.7 |
| <20 | 332 | 8.5 |

D. 1987 TEAMS MATHEMATICS OBJECTIVES MASTERED

| PERCENTAGE | NUMBER OF STUDENTS | PERCENT OF STUDENTS |
|---|---|---|
| >80 | 1,499 | 38.2 |
| 60-79 | 963 | 24.6 |
| 40-59 | 716 | 18.3 |
| 20-39 | 444 | 11.3 |
| <20 | 299 | 7.6 |

E. 1986 ENGLISH ACHIEVEMENT TEST PERCENTILE STANDINGS

| PERCENTILE RANGE | NUMBER OF STUDENTS | PERCENT OF STUDENTS |
|---|---|---|
| >80th %ile | 162 | 4.3 |
| 60-79th %ile | 361 | 9.6 |
| 40-59th %ile | 845 | 22.6 |
| 20-39th %ile | 1,370 | 36.6 |
| <20th %ile | 1,007 | 26.9 |

F. 1987 ENGLISH ACHIEVEMENT TEST PERCENTILE STANDINGS

| PERCENTILE RANGE | NUMBER OF STUDENTS | PERCENT OF STUDENTS |
|---|---|---|
| >80th %ile | 197 | 5.5 |
| 60-79th %ile | 422 | 11.7 |
| 40-59th %ile | 870 | 24.2 |
| 20-39th %ile | 1,177 | 32.8 |
| <20th %ile | 926 | 25.8 |

* Percents may not add to 100 due to rounding.

By examining Table 34, parts A and C, it may be seen that the distribution of scores does not change dramatically. That is, there are approximately the same percentages of students who mastered 80 percent of the reading objectives in 1987 as in 1985, and so forth. The same relative constancy of performance in achievement test scores is also seen by comparing part E to part F. Although both of these comparisons indicate small positive gains, the gross impact of the compensatory programs would appear to be rather limited.

It is necessary to understand that these distributions are based on categorical data with each "block" representing either an additional 20 percent mastery (parts A through D) or 20 percentile points (parts E and F) which means that an average change of approximately 10 points is necessary in order to move from one category to another. As noted earlier in the discussion of Chapter 1 data, the average gain score among Chapter 1 students is less than 10 NCEs and, therefore, certainly much less than the intervals in Table 34. Although this finding might bring into question the utility of the data in Table 34 for examining change, it should be noted that Chapter 1 scores are based on group data which are more stable and less likely to show major change than are individual student performance data where changes of this magnitude are not uncommon. The next table is useful in examining the patterns of change.

TABLE 35
PERCENT OF STUDENTS CHANGING FROM ONE PERFORMANCE CATEGORY TO ANOTHER

The table values are the percentage of students within each category of subjective success and nonsuccess who either stayed the same, lost a performance category, or gained a category (as defined on page 70).

| | | CHANGE IN PERFORMANCE CATEGORY | | |
|---|---|---|---|---|
| SUBJECTIVE SUCCESS | | SAME LEVEL | GAINED LEVEL | LOST LEVEL |
| TEAMS | Yes | 47.4 | 30.5 | 22.1 |
| | No | 46.2 | 24.1 | 29.7 |
| ACHIEVEMENT | Yes | 49.8 | 32.8 | 17.3 |
| | No | 58.7 | 18.9 | 22.3 |

More than half of the students lost or gained at least one category (level), except for the performance of nonsuccessful students on achievement tests. This finding lends credibility to the use of this change measure either alone or included within the compound measure of objective success. Note that even among those students rated successful, approximately 20 percent lost a level while at least 30 percent gained a level. The relative gain in basic skills is somewhat less than expected for what are considered to be "successful" compensatory education students. However, it may be somewhat unrealistic to expect that students will greatly increase percentile standing, given a "constant" distribution of abilities (i.e., there are always 50 percent below the 50th percentile).

Although these results are somewhat discouraging, two factors must be considered. First, there is some overall gain since 30 percent of the "successful" and 24 percent of the "nonsuccessful" students did gain at least one level from 1985 to 1987. This is promising, especially since there was some change in test difficulty from the 1985 Texas Assessment of Basic Skills to the 1987 TEAMS. The second factor relates to expectations. Is it reasonable to expect students identified for compensatory services to hold their own on tests aimed at measuring the performance of students in noncompensatory educational settings? If not, then the finding that almost 80 percent of those students viewed as "successful" and 70 percent of those viewed as "nonsuccessful" maintained or improved in basic skills performance is encouraging.

In terms of the overall state of compensatory education in Texas, the lack of change in performance as shown in Table 35 indicates that there is a great deal of room for improvement. However, a major goal of this study is the identification of the correlates of success for compensatory education programs so that less successful programs may use this information to improve.

The next table contains performance measures other than test scores. These indicators of success are a mix of objective (local or teacher-made test performance) and subjective (demonstration of skill) measures.

TABLE 36
DISTRIBUTION OF STUDENT PERFORMANCE ON MASTERY OF ESSENTIAL ELEMENTS, PROMOTION, AND ENGLISH READING GRADE LEVEL

A. ESSENTIAL ELEMENT MASTERY: LANGUAGE ARTS

| MASTERED? | NUMBER OF STUDENTS | PERCENT OF STUDENTS* |
|---|---|---|
| Yes | 2,713 | 61.2 |
| No | 1,718 | 38.8 |

B. ESSENTIAL ELEMENT MASTERY: MATHEMATICS

| MASTERED? | NUMBER OF STUDENTS | PERCENT OF STUDENTS |
|---|---|---|
| Yes | 2,928 | 66.2 |
| No | 1,498 | 33.8 |

C. ESSENTIAL ELEMENT MASTERY: SCIENCE

| MASTERED? | NUMBER OF STUDENTS | PERCENT OF STUDENTS |
|---|---|---|
| Yes | 3,053 | 69.7 |
| No | 1,326 | 30.3 |

D. ESSENTIAL ELEMENT MASTERY: SOCIAL STUDIES

| MASTERED? | NUMBER OF STUDENTS | PERCENT OF STUDENTS |
|---|---|---|
| Yes | 3,070 | 71.5 |
| No | 1,224 | 28.5 |

E. PROMOTION/RETENTION/PLACEMENT

| ACTION | NUMBER OF STUDENTS | PERCENT OF STUDENTS |
|---|---|---|
| Promoted | 3,337 | 75.0 |
| Retained | 668 | 15.0 |
| Placed | 446 | 10.0 |

F. ENGLISH READING LEVEL

| LEVEL | NUMBER OF STUDENTS | PERCENT OF STUDENTS |
|---|---|---|
| On grade level | 1,458 | 32.6 |
| Below grade level | 2,779 | 62.2 |
| Above grade level | 234 | 5.2 |

* Percents may not add to 100 due to rounding.

BLOCK 2: Student Variables

This presentation block examines various student background variables as they relate to success. Regression analyses were conducted with subjective and objective measures of success considered separately as the dependent (predicted) variable, and student background variables as the independent (predictor) variables. Results of these regression analyses are presented in Table 37.

TABLE 37
REGRESSION ANALYSES OF STUDENT VARIABLES PREDICTING SUCCESS

A: SUBJECTIVE SUCCESS

| SOURCE | DF | F VALUE | PROB>F | | |
|---|---|---|---|---|---|
| MODEL | 10 | 61.138 | 0.0001 | | |
| ERROR | 3434 | | | R-SQUARE | 0.1511 |

B: OBJECTIVE SUCCESS

| SOURCE | DF | F VALUE | PROB>F | | |
|---|---|---|---|---|---|
| MODEL | 10 | 99.606 | 0.0001 | | |
| ERROR | 2577 | | | R-SQUARE | 0.2788 |

| | SUBJECTIVE | | OBJECTIVE | |
|---|---|---|---|---|
| VARIABLE | PARAMETER | PROB >\|T\| | PARAMETER | PROB >\|T\| |
| Intercept | 1.295 | 0.0001 | 4.330 | 0.0001 |
| Number years in district | -0.020 | 0.0314 | -0.045 | 0.0715 |
| Number schools last 5 years | -0.009 | 0.4734 | 0.029 | 0.3881 |
| Eligibility for F/RPL | -0.024 | 0.1401 | 0.028 | 0.5064 |
| Times retained | 0.122 | 0.0001 | 0.277 | 0.0001 |
| Years in comped programs | 0.006 | 0.3720 | 0.084 | 0.0001 |
| Times reentered comped | 0.051 | 0.0058 | 0.088 | 0.0588 |
| Days missed in 86-87 | 0.026 | 0.0010 | 0.098 | 0.0001 |
| Serious behavior problems | -0.114 | 0.0001 | -0.194 | 0.0037 |
| Dropout with no comped | 0.084 | 0.0001 | 0.313 | 0.0001 |
| Number of extracurricular | -0.039 | 0.0001 | -0.135 | 0.0001 |

Both of the models were statistically significant in predicting both subjective and objective success, which may be seen by examining the tabled "F" value and comparing the probability of this value to the preselected value of .05. Throughout this section, probabilities less than .05 will be considered as significant, with some consideration given to "marginally" significant variables below the .10 level. It is noted that a larger percentage of the variance is accounted for when predicting objective success (R-square = .28) rather than subjective success (R-square = .15).

NOTE: In general, the term "variance accounted for" is used as an estimate of the ability of a particular model to "account for" actual performance. In seeking to understand a

particular aspect of human behavior, researchers attempt to predict (or estimate) some measure of performance, referred to as the dependent or criterion variable, from other measures, referred to as the predictor variables, which are believed to be related to performance. Both the criterion and predictor variables will vary across a range of values. The extent to which they vary with one another, or covary, is calculated using linear regression and is described by a value called R-square. R-square varies between 0 and 1, with higher values indicating that a greater portion of the variation in the criterion measure is attributable to the predictor variables. In other words, the higher the R-square value, the stronger the relationship between the criterion variable and the predictor variables. Again, the reader is cautioned about making causal inferences from relational (correlation) data.

Statistics presented for the predictor variables include parameter estimates and probability values. The value of the parameter estimate itself is of little consequence given differences in scaling among the variables. The sign of the estimate is critical and is interpreted by examining the meaning of the value of the predictor variables. The direction of the relationship will be interpreted in the discussions. Note that the intercept is a "constant" and will usually be significant but is not useful to the current purposes of this study.

## Student Mobility

As shown above in Table 37, the variable representing the number of schools attended in the last five years has no statistically significant explanatory value for either the subjective or objective success measure. This result indicates that the mobility rate, in and of itself, may not be a critical factor in predicting success for compensatory students. However, the number of years that the student has been in the district is obviously related to student mobility. Furthermore, this variable was statistically related to subjective success although the relationship to the objective measure was marginally significant. Table 38 presents the percent of students rated successful by the number of years in the district. As shown, there is a general trend for students remaining longer in the district to be successful.

TABLE 38
RELATIONSHIP BETWEEN PERCENT OF STUDENTS
RATED SUCCESSFUL AND YEARS IN DISTRICT

| | TIME IN DISTRICT (YEARS) | | | |
|---|---|---|---|---|
| | 1 | 2-3 | 4-5 | >6 |
| Percent Objectively Successful | 49.1 | 56.6 | 60.9 | 55.7 |

## Free/Reduced Price Lunch

As was noted in the campus section, free/reduced price lunch eligibility is not particularly predictive of being selected for compensatory education. Moreover, free/reduced price lunch status is not predictive of either objective or subjective success.

## Retention

Retention was found to be related to success in that successful students have been retained fewer times. As discussed in the campus section, retention does not appear to be a practice supported by empirical data. Table 39 presents the percent of students rated successful by number of retentions. The percent of students rated nonsuccessful in each of the categories of retention can be calculated by subtracting the percentage shown from 100. In Table 39, it may be seen that more than two-thirds of students who have never been retained are both subjectively and objectively successful. In other words, there is roughly a 2:1 probability that students never retained will be successful. Note that after only one retention this ratio declines so that there is a greater probability of being rated nonsuccessful than successful. This trend continues for both measures of success as the number of retentions increases. However, it appears that retention is supported more from a subjective point of view than from objective consideration since the probability of success decreases at a faster rate for objective measures than for subjective measures.

TABLE 39
PERCENT OF STUDENTS RATED SUCCESSFUL BY NUMBER OF RETENTIONS

| | NUMBER OF RETENTIONS | | | |
|---|---|---|---|---|
| SUCCESS TYPE | 0 | 1 | 2 | 3 |
| Subjective | 68% | 45% | 30% | 15% |
| Objective | 69% | 42% | 23% | 11% |

## Years in Program and Re-entry

As shown above in Table 37, the number of years in compensatory programs is related to the objective measure of success but is not related to the subjective measure. Conversely, the number of times a student has reentered a compensatory program is significantly related to both subjective and objective measures of success. These results present the first of several conflicting findings between the subjective and objective success measures. Although both success measures reflect the same general trend across numbers of years in the program, the specific associations with particular students is stronger and is statistically significant with the objective measure. This relationship, in terms of the objective measure of success, may be stated as the longer the student is in the program the less likely the student will be successful. Specifically, as shown in Table 40, there is a substantial drop between the percent of students rated successful from one year in

the program to two. After four years there is still an even division between success and nonsuccess; however, by the fifth year in the program the ratio has declined substantially.

TABLE 40
PERCENT OF STUDENTS RATED SUCCESSFUL BY YEARS IN PROGRAM

| | YEARS IN PROGRAM | | | | |
|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 |
| Percent Objectively Successful | 69 | 58 | 50 | 51 | 42 |

As opposed to the previous finding, describing the relationship between the number of years in compensatory programs and objective success, marginal statistical significance was found between the number of times reentering the program and objective success. Basically, this may be interpreted as the more often the student reenters the program, the less likely the student will be successful. Insufficient data on students reentering the program two or more times prevented the consideration of a portion of these data. However, for students who had never reentered the program, 59 percent were subjectively successful and 58 percent were objectively successful as compared to only 47 percent who had reentered once (not tabled).

## Absences

As might be expected, the relationship between the number of days missed and performance is quite strong, with success decreasing as absence increases. Also, the deleterious effects of absences are more strongly evident for objectively rather than subjectively determined success. This result clearly supports the rationale for having students attend class.

TABLE 41
PERCENT OF STUDENTS RATED SUCCESSFUL BY AMOUNT OF ABSENCES

| | NUMBER OF ABSENCES (DAYS) | | | | |
|---|---|---|---|---|---|
| SUCCESS TYPE | NONE | 1-5 | 6-10 | 11-20 | 21 OR MORE |
| Subjective | 68% | 63% | 55% | 50% | 32% |
| Objective | 68% | 63% | 50% | 44% | 30% |

## Behavioral Problems

The student with indicated behavioral problems is likely to be considered both objectively and subjectively nonsuccessful.

## Continuing Support

One of the strongest statistical relationships was found between success and the need for additional support to prevent the student from eventually dropping out. Because the results are quite similar for both the objective and subjective measures of success, only the objective relationship is presented in Table 42. The format of Table 42 is different from earlier tables in that of all students rated successful, the percent of those students who will need intervention is presented. Basically, this is a row percent as opposed to a column percent used in previous tables. The categories used are progressive in that there is an increasing amount of intervention indicated, except for the last category.

TABLE 42
PERCENT OF STUDENTS NEEDING INDICATED LEVELS OF INTERVENTION

| | INTERVENTION LEVEL | | | | |
|---|---|---|---|---|---|
| OBJECTIVE SUCCESS RATING | HELP NOT NEEDED | NEED 1-2 YEARS | OCCASIONAL HELP | SIGNIFICANT INTERVENTION | WILL DROP OUT |
| Success | 39% | 18% | 30% | 12% | 1% |
| Nonsuccess | 13% | 18% | 15% | 47% | 7% |

Although the results of "Help Not Needed" for 39 percent of the successful students, and "Significant Intervention" needed for 47 percent of the nonsuccessful students are expected, the 13 percent of nonsuccessful students who do not need help is quite anomalous. Conversely, a student may be a success because of tremendous gains, but still require additional attention. Accordingly, the 12 percent of the successful students who continue to need significant intervention is understandable. It is of some consequence that nonsuccessful students are six times more likely to drop-out as exhibited in the last column of Table 42. An additional analysis examined the relationship between the "Will Drop Out" rating and the student's percentile standing on the 1986 achievement test. Although based on relatively small numbers of students, the additional analysis indicated that students in the range below the 20th percentile are nearly 10 times more likely to be rated "Will Drop Out" as those above the 60th percentile. Clearly, efforts must be targeted toward these students to ensure the continuation of their academic careers.

## Extracurricular Activities

There is a statistically significant relationship between being involved in extracurricular activities and success. Table 43 indicates that as the number of activities increases, the percentage of the students rated successful also increases.

TABLE 43
PERCENT OF STUDENTS RATED SUCCESSFUL
BY NUMBER OF EXTRACURRICULAR ACTIVITIES

| | NUMBER OF EXTRACURRICULAR ACTIVITIES | | | | |
|---|---|---|---|---|---|
| | 0 | 1 | 2 | 3 | 4 OR MORE |
| Percent Objectively Successful | 46 | 61 | 71 | 78 | 75 |

This relationship is not easily interpreted, especially in light of the "no pass-no play" rule. This rule stipulates that students failing to achieve grades of 70 or above during a given six-week period be considered ineligible for extracurricular activities for the following six-week period. One hypothesis is that students who are heavily involved in these activities work harder to correct deficiencies in order to retain their eligibility. Another possible hypothesis is that student involvement in these group educational activities is instrumental in the student's adoption of attitudes which contribute to academic success. The following table examines these hypotheses in more detail.

TABLE 44
PERCENT OF STUDENTS ENGAGED IN EXTRACURRICULAR ACTIVITIES
BY PERCENTILE STANDING

| NUMBER OF | PERCENTILE RANGES | | | | |
|---|---|---|---|---|---|
| ACTIVITIES | <20%ile | 20-39%ile | 40-59%ile | 60-79%ile | >80%ile |
| 0 | 63% | 51% | 43% | 37% | 39% |
| 1 | 25% | 31% | 35% | 33% | 25% |
| 2 | 9% | 12% | 13% | 21% | 21% |
| 3 | 2% | 4% | 5% | 6% | 10% |
| 4 | 1% | 2% | 3% | 3% | 5% |

According to the data presented in Table 44, there is approximately as high a percentage of students above the 80th percentile involved in extracurricular activities (61%) as there are students below the 20th percentile who are not involved (63%). Note, however, that there is almost the same percentage of students across the various percentile ranges who are engaged in one activity. Clearly, the hypothesis that "no pass-no play" encourages students to work harder encounters some difficulty when applied to the very low-performing students (below the 40th percentile), since more than half of these students are not involved in <u>any</u> extracurricular activities. Generally, the higher-performing students are involved in more extracurricular activities and for these students, the "no pass-no play" rule may be an effective tool. Although there is no easy way to test the earlier hypothesis that students adopt positive attitudes through extracurricular participation, it is obvious that low-performing students are underrepresented in extracurricular activities. In addition, no significant variation was

found between success patterns and extracurricular participation over grade levels.

BLOCK 3: District Demographics

The next table contains the results of the regression analyses between the two measures of success and district demographic variables as derived from the general codes used in the student questionnaires. It was hoped that the district variables would be unrelated to the student measures of success since no relationship would indicate that instructional factors, rather than district size, affect student success.

TABLE 45
REGRESSION ANALYSES OF DISTRICT DEMOGRAPHIC VARIABLES
PREDICTING SUCCESS

A: SUBJECTIVE

| SOURCE | DF | F VALUE | PROB>F | | |
|---|---|---|---|---|---|
| MODEL | 4 | 4.067 | 0.0027 | | |
| ERROR | 4033 | | | R-SQUARE | 0.0040 |

B: OBJECTIVE

| SOURCE | DF | F VALUE | PROB>F | | |
|---|---|---|---|---|---|
| MODEL | 4 | 8.046 | 0.0001 | | |
| ERROR | 2867 | | | R-SQUARE | 0.0111 |

| | SUBJECTIVE | | OBJECTIVE | |
|---|---|---|---|---|
| VARIABLE | PARAMETER | PROB >\|T\| | PARAMETER | PROB >\|T\| |
| Intercept | 1.532 | 0.0001 | 5.646 | 0.0001 |
| Super Region Category | -0.009 | 0.1053 | -0.009 | 0.5777 |
| Refined ADA Category | -0.014 | 0.0058 | -0.064 | 0.0001 |
| Percent Minority Category | 0.004 | 0.6672 | 0.048 | 0.1085 |
| Wealth Category | -0.015 | 0.1452 | -0.023 | 0.4177 |

Although both models are significant, the variance accounted for is extremely small in both cases. The ADA category variable, however, is a significant predictor in these models. An analysis which revealed no significant predictor variables would have been preferable because the goals of interest are student-based rather than district-based. The table below presents the percentage of successful students by district size.

TABLE 46
PERCENT SUCCESS BY DISTRICT SIZE

The tabled variables are the percent of students within particular ADA categories who are objectively rated successful, the percent in the top two performance categories on the 1986 achievement test, the percent in the bottom two performance categories on the 1986 achievement test, and the average categorical achievement score.

| | ADA CATEGORY | | | | | |
|---|---|---|---|---|---|---|
| | 25,000 OR HIGHER | 10,000-24,999 | 5,000-9,999 | 3,000-4,999 | 1,000 2,999 | LESS THAN 1,000 |
| Percent students rated successful | 57 | 51 | 49 | 50 | 56 | 63 |
| Percent in top two categories achieve | 7 | 9 | 10 | 14 | 13 | 18 |
| Percent in bottom two categories | 66 | 67 | 66 | 70 | 64 | 58 |
| Average categorical achievement score | 3.87 | 3.83 | 3.88 | 3.79 | 3.75 | 3.57 |

Inherent weighting due to a greater number of students in the sample from the smaller districts, along with a larger percentage of students rated successful, contributes to the statistical significance of the ADA variable. It must be noted, however, that the largest districts have the same percentage rated successful as districts with 1,000-2,999 ADA and that there is no discernible trend across district size. Because of the lack of a trend and the small percent of variance accounted for, the ADA category of the students' district should probably not bias the results to a meaningful degree. The reader is reminded that this analysis is student-based so the impact of district demographic data should presumably be considered somewhat irrelevant.

As further indications of the relative comparability of students, the percentages of students rated in the bottom two categories of performance on the 1986 achievement test are quite close and the average categorical ratings are quite similar among the groups. The percentage of high performing students is slightly greater in the smaller districts.

BLOCK 4: General Program Characteristics

Table 47 contains the results of the regression analyses concerning general program characteristics associated with the two measures of success.

TABLE 47
REGRESSION ANALYSES OF GENERAL PROGRAM CHARACTERISTICS
PREDICTING SUCCESS

A: SUBJECTIVE

| SOURCE | DF | F VALUE | PROB>F | | |
|---|---|---|---|---|---|
| MODEL | 8 | 8.993 | 0.0001 | | |
| ERROR | 1314 | | | R-SQUARE | 0.0519 |

B: OBJECTIVE

| SOURCE | DF | F VALUE | PROB>F | | |
|---|---|---|---|---|---|
| MODEL | 8 | 20.867 | 0.0001 | | |
| ERROR | 989 | | | R-SQUARE | 0.1444 |

| | SUBJECTIVE | | OBJECTIVE | |
|---|---|---|---|---|
| VARIABLE | PARAMETER | PROB >[T] | PARAMETER | PROB >[T] |
| Intercept | 0.913 | 0.0001 | 3.958 | 0.0001 |
| Dual Service | -0.049 | 0.0760 | -0.241 | 0.0005 |
| #Reduced/Modified Content/Day | 0.041 | 0.0001 | 0.187 | 0.0001 |
| # Classes/Native Language | -0.008 | 0.3706 | -0.030 | 0.1764 |
| Size of Comp Ed Classroom | -0.043 | 0.0096 | 0.002 | 0.9644 |
| Size of Regular Classroom | 0.036 | 0.0215 | 0.065 | 0.0965 |
| Subject Area of Comp Ed | 0.012 | 0.4541 | 0.043 | 0.2645 |
| Excess Cost Program | 0.030 | 0.2825 | -0.048 | 0.4966 |
| Student Used to Tutor | 0.242 | 0.0001 | 0.796 | 0.0001 |

Dual Service

When dual service was considered in the campus section, it was speculated that the practice may not be particularly associated with success as measured by exit rates. As shown, the question of dual service was also asked on the student questionnaire. Although not quite significant with the subjective measure, dual service was statistically related to the lack of success when measured objectively. The table below illustrates this relationship.

TABLE 48
PERCENT OF STUDENTS RATED SUCCESSFUL BY DUAL SERVICE

| OBJECTIVE SUCCESS RATING | DUAL SERVICE Yes | No |
|---|---|---|
| Success | 47% | 65% |
| Nonsuccess | 53% | 35% |

It is obvious that the percent of students rated successful is much greater for those receiving only one type of service. An issue of interest was whether the students received more than one type of service because they were more in need of compensatory instruction. In an attempt to investigate this issue further, the percent of students evidencing particular performance on the 1985 Texas Assessment of Basic Skills was examined in relation to dual service. This performance indicator was used because it extends back to a period of time when, it is speculated, many of these students were selected for service.

TABLE 49
PERCENT OF STUDENTS RECEIVING DUAL SERVICE
BY TEXAS ASSESSMENT OF BASIC SKILLS PERFORMANCE LEVEL

| | PERCENT OF READING OBJECTIVES MASTERED | | | | |
|---|---|---|---|---|---|
| | ≤20% | 29-39% | 40-59% | 60-79% | >80% |
| Percent of students receiving dual service within performance categories | 62% | 47% | 45% | 43% | 30% |

Although students who were in the highest range received the least dual service and those in the lowest the most, it is noted that from the 20th through the 79th percentile, the amount of dual service was almost constant. These middle range students constitute 66 percent of the students receiving dual service. One would expect a more dramatic trend, if dual service actually was strictly related to the need for service. Again, the basis of decisions in assigning students to dual service programs may be called into question by this finding.

Reduced/Modified Content Classes

It was expected that the number of academic classes with reduced or modified content that a student attends in one day would be related to success. While this relationship was found, it was not easily interpreted. As seen in Table 50, there is a dramatic drop in the percent of students rated successful when the number of special classes changes from one to two, while the change is of a smaller magnitude for students rated nonsuccessful. In other words, the majority of successful students have only one special class per day, while there is a more even distribution of nonsuccessful students across the number of classes categories.

TABLE 50
PERCENT OF STUDENTS RATED SUCCESSFUL
BY NUMBER OF REDUCED/MODIFIED CONTENT CLASSES PER DAY

| SUCCESS RATING | NUMBER OF REDUCED/MODIFIED CLASSES PER DAY 1 | 2 | 3 | 4 | 5 OR MORE |
|---|---|---|---|---|---|
| Success | 63% | 20% | 7% | 2% | 8% |
| Nonsuccess | 35% | 28% | 15% | 8% | 14% |

Another analysis attempted to establish the relationship between the number of reduced or modified content classes per day and the need for service. To do this, the number of special classes per day was separated by the number of objectives passed on the 1985 Texas Assessment of Basic Skills administration. The relationship expected would be that students passing a high percentage of objectives needed fewer special classes and those passing few objectives needed considerable special attention. Table 51 indicates, however, that the higher-performing students tend to have few special classes, while there is little prediction for the lowest performing students. In fact, as the number of objectives passed decreases, there is a tendency for the percentage of students to level out across the categories.

TABLE 51
PERCENT OF STUDENTS WITH INDICATED NUMBER OF SPECIAL CLASSES
BY PERCENT OF 1985 BASIC SKILLS READING OBJECTIVES PASSED

| NUMBER OF SPECIAL CLASSES | PERCENT OF OBJECTIVES MASTERED <20% | 20-39% | 40-59% | 60-79% | >80% |
|---|---|---|---|---|---|
| 1 | 29 | 40 | 44 | 51 | 63 |
| 2 | 21 | 29 | 28 | 25 | 18 |
| 3 | 21 | 15 | 14 | 10 | 7 |
| 4 | 11 | 6 | 6 | 5 | 3 |
| 5 | 18 | 11 | 8 | 8 | 8 |

## Size of Classroom

It was anticipated that the size of the classroom would be significantly related to success, since as the student to instructor ratio decreases, the opportunity for individualized attention increases and the student's particular instructional needs should have a better chance of being met. In this study, however, the size of the compensatory classroom was not significantly associated with objective success. On the other hand, the relationship with subjective success was such that the larger the compensatory class, the more likely the student would be rated successful.

Conversely, the size of the regular classroom was significantly related to both objective and subjective success. The direction of this

relationship, however, indicated that the smaller the regular class, the greater the association with success. The table below illustrates the relationship between size of regular classroom and percentage of students rated successful.

TABLE 52
PERCENT OF STUDENTS RATED SUCCESSFUL BY SIZE OF REGULAR CLASSROOM

| | SIZE OF REGULAR CLASSROOM | | | | |
|---|---|---|---|---|---|
| | <10 | 11-18 | 19-22 | 23-30 | >30 |
| Percent Objectively Successful | 69 | 60 | 58 | 56 | 49 |

Note that the percent rated successful is relatively constant in the middle ranges of classroom size. There are substantial changes evident when the number of students rises above 30 and falls below 10 per classroom. This substantial increase in success with smaller class size is in line with the findings of other studies indicating that student-to-instructor ratios below 10 have a positive impact upon student performance. What is not clear is why this effect was evident in the regular classrooms but not in the compensatory classrooms.

Table 53 on the next page indicates the percentage of students in the particular sizes of classes for both compensatory and regular instruction. These data are only for compensatory students and not for the general student population. As may be seen, the compensatory classes are smaller than those for regular instruction. Although most studies indicate a benefit for this reduced student-to-instructor ratio, it was not evidenced in this study for the compensatory classes, perhaps due to the noticeable skew in the distribution toward small class size.

TABLE 53
DISTRIBUTION OF CLASS SIZE FOR COMPENSATORY STUDENTS
BY COMPENSATORY AND REGULAR CLASSES

Tabled value is the percent* of students within particular grade levels with the indicated class sizes.

| | | NUMBER OF STUDENTS IN THE CLASS | | | | |
|---|---|---|---|---|---|---|
| | | <10 | 11-18 | 19-22 | 23-30 | >30 |
| Grade 1 | Regular | 5% | 30% | 56% | 10% | 0% |
| | Comp Ed | 64% | 24% | 10% | 2% | 0% |
| Grade 3 | Regular | 3% | 18% | 39% | 38% | 1% |
| | Comp Ed | 62% | 26% | 9% | 3% | 0% |
| Grade 5 | Regular | 3% | 17% | 26% | 51% | 3% |
| | Comp Ed | 60% | 27% | 8% | 5% | 0% |
| Grade 7 | Regular | 2% | 16% | 30% | 50% | 3% |
| | Comp Ed | 24% | 48% | 20% | 7% | 0% |
| Grade 9 | Regular | 1% | 21% | 25% | 49% | 3% |
| | Comp Ed | 14% | 54% | 23% | 9% | 1% |
| Grade 11 | Regular | 2% | 19% | 28% | 49% | 2% |
| | Comp Ed | 17% | 46% | 26% | 11% | 0% |

* Percents may not add to 100 due to rounding.

### Subject of Compensatory Instruction

This variable contained information on whether the student was receiving compensatory instruction in reading, mathematics, or both. It was not significantly related to either measure of success.

### Excess-Cost

This variable, which contained information about the structure of the program as defined by excess-cost, was not significantly associated with success.

### Student Tutor

An item on the student questionnaire indicated whether a student tutored other students in the compensatory classroom. While this strategy was indicated for only 13 percent of the students, of those, 79 percent were rated successful. Of all successful students, almost 20 percent were used as tutors. Although this is a student-specific variable, it does provide an indication of the percentage of programs incorporating this strategy. On the basis of the positive association with success found in this study, it appears that the practice of allowing compensatory students to tutor their classmates is beneficial.

BLOCK 5: Instructional Strategies

This block examines the relationship of specific instructional strategies to student success. These strategies are specific to the individual student, unlike those examined in the campus section.

TABLE 54
REGRESSION ANALYSES OF INSTRUCTIONAL STRATEGIES PREDICTING SUCCESS

A: SUBJECTIVE

| SOURCE | DF | F VALUE | PROB>F | | |
|---|---|---|---|---|---|
| MODEL | 10 | 12.016 | 0.0001 | | |
| ERROR | 3892 | | | R-SQUARE | 0.0299 |

B: OBJECTIVE

| SOURCE | DF | F VALUE | PROB>F | | |
|---|---|---|---|---|---|
| MODEL | 10 | 45.572 | 0.0001 | | |
| ERROR | 2846 | | | R-SQUARE | 0.1380 |

| | SUBJECTIVE | | OBJECTIVE | |
|---|---|---|---|---|
| VARIABLE | PARAMETER | PROB >\|T\| | PARAMETER | PROB >\|T\| |
| Intercept | 1.445 | 0.0001 | 5.567 | 0.0001 |
| All EE* At Same Depth As Reg | 0.082 | 0.0021 | 0.554 | 0.0001 |
| All EE At Less Depth | 0.022 | 0.3911 | 0.015 | 0.8215 |
| Fewer EE Than Reg Students | -0.072 | 0.0017 | -0.268 | 0.0001 |
| Mastery Learning | 0.086 | 0.0001 | 0.298 | 0.0001 |
| Test-Taking Skills | 0.038 | 0.1068 | 0.141 | 0.0190 |
| Additional Time on Task | -0.081 | 0.0001 | -0.332 | 0.0001 |
| Computerized Instruction | 0.005 | 0.7584 | 0.038 | 0.3671 |
| Tutoring Within School Day | -0.037 | 0.0255 | -0.212 | 0.0001 |
| Tutoring Before/After Day | -0.041 | 0.0154 | -0.189 | 0.0001 |
| Grouping By Ability | 0.012 | 0.5151 | -0.016 | 0.7426 |

* EE denotes Essential Elements

Essential Elements

As noted in Table 54, there was no significant relationship between teaching all essential elements in less depth and the measures of success. There were significant relationships between the other two essential elements variables and success. Instruction using essential elements at the same depth as regular classes is associated with success, while instruction with fewer essential elements is associated with nonsuccess.

TABLES 55A AND 55B
PERCENT OF STUDENTS RATED SUCCESSFUL
BY TWO DIFFERENT INSTRUCTIONAL STRATEGIES

TABLE 55A

| OBJECTIVE SUCCESS | EE AT SAME DEPTH Yes | No |
|---|---|---|
| Yes | 66% | 36% |
| No | 34% | 64% |

TABLE 55B

| OBJECTIVE SUCCESS | FEWER EE Yes | No |
|---|---|---|
| Yes | 34% | 60% |
| No | 66% | 40% |

Although it might seem obvious that more successful students are those who can be instructed on-level, the relationship may be more complex. Of students achieving objective success, 66 percent were receiving on-level instruction of the essential elements while only 34 percent were receiving instruction with fewer essential elements.

Table 55B indicates that 66 percent of the students rated nonsuccessful were receiving instruction in fewer essential elements. While it might be reasonable to expect that the lowest performing students would receive less than on-level instruction (perhaps with fewer essential elements) in fact, approximately 50 percent of the students who scored below 40 percent mastery on the 1985 Texas Assessment of Basic Skills were receiving on-level instruction (not presented in table format). Specifically, the next table looks at students who initially performed lowest (objective success) and instruction using all or fewer essential elements.

TABLES 56A AND 56B
RELATIONSHIP BETWEEN INITIAL PERFORMANCE, SUCCESS, AND INSTRUCTION

The tabled value is the percent of students within particular instructional categories who are objectively successful. All students included in this table initially mastered fewer than 20 percent of the reading objectives on a 1985 basic skills test.

TABLE 56A

| OBJECTIVE SUCCESS | EE AT SAME DEPTH Yes | No |
|---|---|---|
| Yes | 29% | 13% |
| No | 71% | 87% |

TABLE 56B

| OBJECTIVE SUCCESS | FEWER EE Yes | No |
|---|---|---|
| Yes | 12% | 24% |
| No | 88% | 76% |

Given that all of these students are in severe need of remediation (initially mastering fewer than 20 percent of the basic skills reading objectives in 1985), the comparison of strategies is particularly relevant. Table 56A indicates that only 29 percent of compensatory students receiving all of the elements at the same depth as regular students are rated successful. Only 13 percent of those who do not receive this type of instruction are rated successful. In other words, for this group of low-performing students, the chance of failure is great in any case but it increases when all of the elements are not taught at the same depth.

In Table 56B, a similar pattern is evident since those students instructed using fewer elements are less likely to be rated successful. Although these results were derived from two completely independent questions and are specific to the lowest-performing students, this finding suggests that students need to be instructed in all essential elements in order to succeed. In other words, even for the lowest-performing students, restricted instruction clearly is not a successful practice. While not specifically examined, it is assumed that complete essential element instruction represents higher expectations of student achievement. The reader is reminded, however, that this is a general statement. Some students were not successful when all essential elements were taught and some were successful when fewer were taught. Individual students require individual decisions regarding instruction. In other words, demonstrated low performance does not mean that the student should necessarily receive lower-level instruction.

## Mastery Learning

As shown in Table 57, an instructional program including mastery learning was found to be positively associated with both objective and subjective success. Tables 57A and 57B indicate the percentages of successful and nonsuccessful students by the exposure or lack of exposure to mastery learning techniques. The use of mastery learning techniques appears to have been beneficial since 60 percent of students exposed, but only 51 percent of students not exposed, were subjectively rated successful (a difference of nine percent). This difference is even more marked for the objective success measure where 61 percent of students exposed to mastery learning techniques are successful while only 45 percent of those not exposed are successful (a difference of 16 percent). Additional analysis indicated that on the basis of need for service, as determined by the 1985 basic skills test results, there was little difference between the use of this technique regardless of initial performance level.

TABLES 57A AND 57B
RELATIONSHIP BETWEEN SUCCESS AND MASTERY LEARNING

TABLE 57A

| SUBJECTIVE SUCCESS | MASTERY LEARNING Yes | No |
|---|---|---|
| Yes | 60% | 51% |
| No | 40% | 49% |

TABLE 57B

| OBJECTIVE SUCCESS | MASTERY LEARNING Yes | No |
|---|---|---|
| Yes | 61% | 45% |
| No | 39% | 55% |

## Test-Taking Skills

This strategy entails instruction in test-taking methods but does not imply that sample test items themselves are reviewed. Basically, students are given practice in filling out answer sheets and in responding to questions within strict time limits. This strategy proved to be significant in predicting objective success (see Table 54), and an additional analysis tends to indicate a roughly 15 percent greater occurrence of success when the test-taking skills are part of the curriculum.

## Additional Time on Task

Another strategy allows students additional time to complete specific assignments. Although this variable was associated with nonsuccess, the relationship does not appear to be strong. As may been seen in Tables

58A and 58B, approximately half of the successful students, using either measure, are given additional time. The columns representing students for whom no additional time is allowed indicate that 66 percent were subjectively, and 72 percent were objectively, rated successful. Analysis also indicates that, except for the students least in need for compensatory services (above 80 percent on 1985 basic skills), there is little difference (between students receiving and those not receiving additional time on task) among other performance groups.

TABLES 58A AND 58B
SUCCESS RATINGS BY ADDITIONAL TIME ON TASK

TABLE 58A

| SUBJECTIVE SUCCESS | ADDITIONAL TIME Yes | No |
|---|---|---|
| Yes | 55% | 66% |
| No | 45% | 34% |

TABLE 58B

| OBJECTIVE SUCCESS | ADDITIONAL TIME Yes | No |
|---|---|---|
| Yes | 52% | 72% |
| No | 48% | 28% |

Computerized Instruction

There was no positive or negative association with computerized instruction, as measured in the regression analyses.

Tutoring

Measures were taken on whether students were tutored within the school day or before/after the school day. There were significant relationships evident for both measures of success with tutorials during and before or after the school day. Regardless of initial ability level, as measured on the 1985 Texas Assessment of Basic Skills, 41 percent of the students received tutoring within the school day and 68 percent before or after the school day.

TABLES 59A AND 59B
SUCCESS RATINGS BY TUTORING

TABLE 59A

| OBJECTIVE SUCCESS | WITHIN DAY RECEIVED TUTORING Yes | No |
|---|---|---|
| Yes | 52% | 60% |
| No | 48% | 40% |

TABLE 59B

| OBJECTIVE SUCCESS | BEFORE/AFTER DAY RECEIVED TUTORING Yes | No |
|---|---|---|
| Yes | 53% | 62% |
| No | 47% | 38% |

In Tables 59A and 59B, it may be seen that of students receiving tutoring an almost equal number are rated successful as nonsuccessful. Conversely, of those students not receiving tutoring, a greater percentage are successful. Although tutoring probably cannot be considered detrimental to success, it may not be an extremely successful strategy either. This finding is in contrast to the earlier finding in this section that students who tutor are more likely to be successful.

BLOCK 6: Teacher Variables

This block contains an examination of the relationship between selected teacher variables and student performance.

TABLE 60
REGRESSION ANALYSES OF TEACHER VARIABLES PREDICTING SUCCESS

A: SUBJECTIVE

| SOURCE | DF | F VALUE | PROB>F | | |
|---|---|---|---|---|---|
| MODEL | 5 | .906 | 0.4776 | | |
| ERROR | 3291 | | | R-SQUARE | 0.0014 |

B: OBJECTIVE

| SOURCE | DF | F VALUE | PROB>F | | |
|---|---|---|---|---|---|
| MODEL | 5 | 3.627 | 0.0030 | | |
| ERROR | 2430 | | | R-SQUARE | 0.0074 |

| | SUBJECTIVE | | OBJECTIVE | |
|---|---|---|---|---|
| VARIABLE | PARAMETER | PROB >[T] | PARAMETER | PROB >[T] |
| Intercept | 1.436 | 0.0001 | 5.361 | 0.0001 |
| Aide Used in CompEd Classroom | -0.009 | 0.6256 | 0.732 | 0.1649 |
| Aide Used in Regular Class | 0.005 | 0.8395 | 0.737 | 0.2472 |
| Coordination Regular/Comped | -0.011 | 0.1308 | -0.056 | 0.0070 |
| Overall Experience Comped | 0.010 | 0.2080 | 0.025 | 0.2535 |
| Comped Experience Teacher | 0.001 | 0.8974 | -0.004 | 0.8546 |

### Teacher Aides

There was no statistically significant association between success and the use of teacher aides in either the compensatory classroom or in the regular classroom. This result, like other nonsignificant results, does not mean that teacher aides cannot be effective given appropriate practices; it simply indicates that no positive or negative association with success was evident in this study.

### Coordination

The only statistically significant relationship evident when examining the relationship between teacher variables and success was in the area of coordination between regular and compensatory teachers. As Table 61 indicates, this relationship is not perfect, in that the percent of success for the no coordination category (labeled None) is higher than or equal to rare, monthly, or weekly coordination. It should be noted, however, that no coordination is qualitatively different from the other categories which are all characterized by some degree of coordination. The most important finding evident in Table 61 is that there is a clear trend showing a higher percentage of success as coordination increases from rarely to daily.

TABLE 61
PERCENT OF SUCCESS BY AMOUNT OF COORDINATION

| | AMOUNT OF COORDINATION | | | | |
|---|---|---|---|---|---|
| | None | Rarely | Monthly | Weekly | Daily |
| Objective success | 57% | 47% | 53% | 57% | 60% |

This result should be considered in conjunction with the next table where the percentage of students is presented by various degrees of teacher coordination.

TABLE 62
PERCENT OF STUDENTS IN CATEGORIES OF COORDINATION

| | AMOUNT OF COORDINATION | | | | |
|---|---|---|---|---|---|
| | None | Rarely | Monthly | Weekly | Daily |
| Objective success | 9% | 13% | 20% | 37% | 21% |

Although coordination between the regular and compensatory teacher was positively associated with success, Table 62 indicates that approximately half of the successful students are involved in programs where coordination occurs at least weekly.

Teacher Experience

There was no statistically significant relationship between the amount of either compensatory-specific or general teaching experience and student success.

BLOCK 7: Parental Involvement

Table 63 contains the results of the regression analyses for various parental variables as predictors of student success.

TABLE 63
REGRESSION ANALYSES OF PARENT VARIABLES PREDICTING SUCCESS

A: SUBJECTIVE

| SOURCE | DF | F VALUE | PROB>F | | |
|---|---|---|---|---|---|
| MODEL | 4 | 16.427 | 0.0001 | | |
| ERROR | 3648 | | | R-SQUARE | 0.0177 |

B: OBJECTIVE

| SOURCE | DF | F VALUE | PROB>F | | |
|---|---|---|---|---|---|
| MODEL | 4 | 39.941 | 0.0001 | | |
| ERROR | 2681 | | | R-SQUARE | 0.0562 |

| | SUBJECTIVE | | OBJECTIVE | |
|---|---|---|---|---|
| VARIABLE | PARAMETER | PROB >\|T\| | PARAMETER | PROB >\|T\| |
| Intercept | 1.207 | 0.0001 | 4.257 | 0.0001 |
| Parent In PTA/PTO | 0.044 | 0.0025 | 0.267 | 0.0001 |
| Parent In Classroom | 0.025 | 0.2163 | 0.250 | 0.0001 |
| Number Of Conferences | 0.058 | 0.0001 | 0.195 | 0.0001 |
| Parent In Adult Ed Classwork | -0.017 | 0.3323 | -0.123 | 0.0125 |

Parent Participation in PTA/PTO

Parental participation in parent-teacher organizations (PTA/PTO) was predictive of both measures of success. However, parental participation in classroom activities was predictive only for the objective measure of success. For students whose parents are not involved in either PTA/PTO or in classroom activities, there is roughly a 50 percent chance of being considered successful either objectively or subjectively. With parental involvement, however, the objective success rate is in excess of 70 percent. Although students may succeed even when parental involvement is lacking, parental participation appears to increase the probability of success.

Parent Conferences

The number of parental conferences is inversely related to success. That is, the fewer conferences held, the greater the percentage of successful students. This result might be anticipated, given that conferences are usually generated because of either academic or behavioral difficulties. More conferences may simply reflect additional or more severe difficulties.

## Adult Education Classwork

There was a tendency for children whose parents were involved in adult education classes to have a greater chance of objectively measured success. The very small numbers of parents involved in this classwork, however, suggest that this finding may not be applicable to the entire population of compensatory students.

BLOCK 8: Bilingual Students

Students enrolled only in a special language program, whether bilingual or English as a Second Language (ESL), were to be excluded from this sample. However, there were approximately 400 students who were, or had been, in both a special language program and a compensatory program as defined for this study. Approximately half of these students had already exited the special language program. This population of multiple service students may not be considered uniquely representative of either compensatory students or special language students because of the interrelated nature of these programs for these students. Various analyses were conducted to determine how these students compared to the other compensatory students.

First, there was no difference in the rated percentage of either objective or subjective success between those students in bilingual or those in ESL instruction, although both groups did exhibit a difference from other compensatory students. There were approximately 8 percent fewer students subjectively rated successful in the special language group, while for the objective measure, this difference was nearly 20 percentage points. No attempt should be made to generalize these results to special language students who are not enrolled in compensatory programs. The point is, however, that students exited from special language programs and subsequently enrolled in compensatory programs may face even greater difficulties than other compensatory students. As the table below demonstrates, there were some differences in exit status between bilingual and ESL students but the magnitude and distribution of the differences make interpretations tenuous.

TABLE 64
PERCENT OF STUDENTS BY EXIT STATUS

| | EXIT STATUS | | | | |
|---|---|---|---|---|---|
| PROGRAM | 23-40th %ile | >40th %ile | Withdrew Parental Request | <23rd %ile, Mastered EE | Demonstrate English Prof |
| Bilingual | 32% | 38% | 5% | 17% | 8% |
| ESL | 37% | 22% | 10% | 22% | 10% |

Table 65 indicates the need for assistance of these students. For the purpose of comparison, the same information is presented for students never enrolled in a special language program (labeled Others).

TABLE 65
PERCENT OF STUDENTS NEEDING VARIOUS LEVELS OF INTERVENTION
BY SPECIAL LANGUAGE PROGRAM AND NO LANGUAGE PROGRAM GROUPS

| | NEED FOR ASSISTANCE | | | | |
|---|---|---|---|---|---|
| PROGRAM | Help Not Needed | Need 1-2 Years | Occasional Help | Significant Intervention | Will Drop Out |
| Bilingual | 27% | 13% | 20% | 38% | 2% |
| ESL | 21% | 22% | 20% | 32% | 5% |
| Others | 27% | 18% | 24% | 28% | 4% |

These results indicate that the need for significant intervention is greater for these special language students than for other compensatory students. The potential for dropping out, however, is roughly the same as for the other students, although slightly lower for bilingual students than ESL students. Again, these results are based on relatively few students and are not generalizable to the special language student population as a whole.

BLOCK 9: Migrant Students

Within the compensatory population is a subgroup of migrant students. The sample of students for this study included approximately 350 migrant students. The criteria for identification as a migrant student was that the student had been eligible for migrant services within the last five years. Two distinctions apply to migrant students - those who are continuing in the migration pattern and those who have "settled out" but are still eligible for service. Of those continuing in the pattern, there are two subcategories of migrating students, intrastate and interstate. This study probably did not include very many students continuing in the migration pattern which was surmised through an examination of the number of school days missed by these students. In this sample, the number of days missed for the students classified as migrant did not differ from the general population of compensatory students. Thus, the problem generally associated with migrants (missing school) cannot be adequately addressed by this study.

It was found, however, that performance for this migrant group was quite similar to that of other compensatory students. As measured, (both subjectively and objectively) there was no difference in the ratings of success between the groups. In addition, migrant students were not indicated as needing more support on a continuing basis. Finally, these students' promotion and retention histories were quite similar to other compensatory students.

Differences between the overall compensatory and migrant populations included a greater percentage of migrant students eligible for free/reduced price lunch and participation for longer periods of time in compensatory programs for the migrant students.

Although no statistically significant findings were evident in this portion of the study, the characteristics and relatively small number of migrants included in this sample were not conducive to a successful investigation.

# CHAPTER IV

# DISCUSSION

## INTRODUCTION

In this chapter, summary discussions of four issues will integrate the findings from various data sources including student and campus collections from this study, Texas Educational Assessment of Minimum Skills (TEAMS) data, annual Chapter 1 data, and the results of two related dissertation studies. These data were collected for various purposes and are typically general in nature. However, examination of specific variables associated with these issues was not the intent of this overview study, although it was possible to identify some aspects of instruction, teacher capabilities, and parental involvement associated with student success. These relationships are evident on a statewide basis, acknowledging that educational environments are unique to each district and campus.

Any recommendations included in this report are derived from an evaluation perspective. Final recommendations to districts are expected to be presented within the format of the REACH documents produced by the Agency. Specific recommendations contained in the document will be developed by Agency program staff on the basis of this report and on program descriptions derived from on-site visits to campuses identified as exhibiting superior performance on the measures included in this study.

The issues considered in this discussion focus on:

- Students
- Programs
- Teachers
- Parents

Although it is impossible to consider each of these issues in isolation, the central findings regarding each of them will be reviewed. Before discussing the issues, a review of the definition of success as used in this study is presented.

### Definition of Success

The criteria used to judge the effects of instruction are central to the discussion of the impact of compensatory programs. Success can be based on objective or subjective measures, and as was seen in the Findings section, these perspectives do not always coincide. Obtaining several different measures of objective success was integral to this study. The objective measures obtained included test scores, promotion and retention rates, exit rates, and measures of essential element mastery and grade-level performance. A composite measure of selected outcomes was constructed for use in evaluating the student-level data. In addition, a subjective measure of success was obtained for each student. As a result, the findings of this study are not predicated upon one specific outcome measure but rather upon a broad-based perspective of performance.

## STUDENT ISSUES

Clearly, the type of students in compensatory programs is an issue of interest. Because state compensatory funding is linked to the number of students eligible for the free/reduced price lunch program, the relationship between eligibility and service was examined. Using both student and campus level data, it was found that 55 to 60 percent of students in compensatory programs are eligible for free/reduced price lunch. However, this percentage may be underestimated by approximately five percent, since high school students often do not indicate eligibility. Although the free/reduced price lunch students tended to score somewhat lower on standardized measures, they were often just as likely to be objectively successful. The percentage of free/reduced price lunch students in compensatory programs was approximately 20 percent higher than in the general student population for all classifications of district size. Furthermore, free/reduced price lunch students apparently stay in the programs longer and do not participate in extracurricular activities at the same rate as other compensatory students.

Data from the student sample indicated that nearly equal numbers of students have been in compensatory programs for one year, two years, or three or more years. However, students who have been in the program for longer periods of time are less likely to be objectively successful. Nearly all of the students have been in the district for at least three years, and 65 percent have been enrolled in only one school within the district. Moreover, greater lengths of time in the district are positively associated with subjective measures of success.

One of the most interesting associations was found between behavioral problems and success. There was a strong association between both objective and subjective measures of nonsuccess and behavioral problems. In addition, a significant relationship was found between the number of days absent and both objective and subjective success. In general, the more days missed, the greater the chance for failure.

Many studies, including those of high-performing students, find that extracurricular activities are positively related to success. In this study, less than half of the students below the 40th percentile on achievement tests were involved in extra-curricular activities. The "no pass-no play" rule may make it more difficult for compensatory students to participate in extracurricular activities.

Twenty-seven percent of compensatory students were below the 20th percentile on the 1986 achievement test and 37 percent were between the 20th and 39th percentiles. However, 4 percent of the students were above the 80th percentile at the beginning of the school year. Data from the 1985 administration of the Texas Assessment of Basic Skills test indicated that 29 percent of the students mastered more than 80 percent of the objectives, 26 percent achieved between 60 and 79 percent mastery, 20 percent achieved 40 to 59 percent mastery, and 24 percent achieved less than 40 percent mastery. The performance of students did not significantly differ by district size, regardless of the results of the 1985 Texas Assessment of Basic Skills, TEAMS, 1986 or 1987

achievement measures. In addition, approximately half of the students showed no change in performance category, while roughly equal percentages lost and gained standing, although more gain than loss was expected. Although the data were collected by performance category rather than raw score, additional analyses verified that the change measure used to identify practices resulting in increased student performance was appropriately sensitive.

The campus report indicated that across grade levels K-8, approximately 30 percent of the students exit the program each year. Considering a constant 30 percent exit rate, without replacement all of the students should have left the program after three or four years. Obviously, there is some influx of new students into the state and some recidivism, but these numbers cannot account for the approximately even numbers of students served across all grade levels. In fact, the exit rate for high school Correlated Language Arts is even lower at 20 percent. There are three major ways of interpreting the stability of the compensatory population.

First, compensatory education identification procedures are often normative in nature. That is, all students performing below a selected percentile are served. For example, if the 30th percentile is the selection criterion, 30 percent of the students will be in compensatory programs, since there will always be 30 percent of the students below the 30th percentile. In this case, compensatory education is basically self-perpetuating. However, questions are raised regarding the practice of providing compensatory programs in a vain attempt to have all students attain achievement above the 40th percentile.

Another way of examining the consistency of the compensatory population involves a cyclical trend. Specifically, compensatory students are remediated and exited with the skills to perform in the regular program, but approximately the same number have failed in the regular program and need remediation. The issue, then, is not the effectiveness of compensatory programs, but rather the effectiveness of the regular education programs.

Yet another explanation for the stability of the compensatory population involves the phenomenon of "tracking." Once students are "labeled" compensatory, through the use of normative selection criteria for example, they remain prime candidates for this service indefinitely. Perhaps the best example of this occurs in high school where students are counseled into these programs. Results from one of the dissertation studies reviewed in this report indicated that quite often the process for selecting students for Correlated Language Arts, and for placing students into English, is not firmly based on logically derived information.

As indicated by the campus-level data, lower percentages of compensatory students are promoted from one grade to the next. In addition, a rather low promotion rate for all other students in the first grade was found. The largest districts generally had lower promotion rates, a difference that was especially dramatic for ninth grade Correlated Language Arts students. Analysis of the student-level data indicated that 62 percent

of the students have never been retained, 30 percent have been retained once, and a small percent have been retained multiple times. Success was found to decrease markedly after only one retention, particularly objectively measured success.

An additional analysis of promotion and exit rates in grade levels K-5 found that students being exited from compensatory programs are promoted at a rate more similar to that for students remaining in the program than for all other students. A related finding indicated that fully 20 percent of students exiting the program are retained in the first grade. It seems odd that a student reaching a sufficient performance level to exit the compensatory education program would fail to be promoted, unless retention is being used as a substitute for service.

## INSTRUCTIONAL STRATEGIES

As indicated in both the campus and student analyses, the practice of serving students with more than one instructional program is not related to success, whether measured by promotion or exit rates. In addition, the instructional strategies effective for exit rate success were found to be associated with lower promotion rates. Data on instructional arrangements and approaches at the campus level were not particularly useful in examining strategy effectiveness. Analysis of instructional strategies data from the student sample revealed that reduced or modified content classes and instruction with fewer essential elements were associated with nonsuccess. These findings were supported even for initially low-performing students. Instruction using all of the essential elements at the same level as regular students was clearly associated with success, even for low-performing students. The breadth of coverage and heightened expectations associated with on-level instruction appear to be beneficial to compensatory education students.

## TEACHERS AND AIDES

Of all of the variables related to teachers and aides examined in this study, only coordination between the regular teacher and the compensatory teacher was significantly associated with success. Although more frequent coordination was associated with greater success, almost half of the teachers (43 percent) indicated coordination on a monthly or less frequent basis.

## PARENTS

Parental involvement in the instructional program was positively related to both subjective and objective measures of success. On the other hand, the number of conferences between parents and teachers was associated with subjectively determined nonsuccess.

## SUMMARY STATEMENT

The major findings and conclusions from this study are as follows:

1. Eligibility for free/reduced price lunch is only marginally related to service in a compensatory program and is not related to success.

2. Exit rates are almost constant at 30 percent per year. However, there is no concomitant decline in the number of students served over time indicating that the selection measures, and possibly the exit standards, for compensatory programs need to be reconsidered. In addition, the high numbers of students retained in regular education programs call into question the effectiveness of the general educational program.

3. The overall impact of compensatory programs as measured by changes in the distributions of both normative and criterion-based test scores is positive but quite small.

4. In general, retention is not a successful practice. Moreover, compensatory students are retained at a higher rate than other students.

5. On-level instruction is critical for success regardless of students' initial performance levels. Although not examined, higher expectations for student performance which often accompany on-level instruction for compensatory students may also positively affect success.

6. Of all the teacher variables examined, only frequent coordination between the regular and compensatory teacher is positively related to success.

7. Parental involvement is positively related to success.

Now that critical variables have been identified, the Agency should encourage detailed studies of the specific relationships of these variables to success. For example, consideration of the relationships among student identification, funding, and free/reduced price lunch eligibility would be appropriate. Although these detailed studies are usually beyond the capability of a state agency, due in part to a lack of direct access to students, cooperative studies are a potential approach to be considered. Through the efforts of the newly created Commissioner's Advisory Committee for Research and Evaluation, it is anticipated that cooperative studies involving the Agency, districts, and universities could address these issues in the near future.

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# APPENDIX A

## DEMOGRAPHIC CODING USED FOR STUDENT SURVEY

The demographic codes used for the individual student surveys were constructed in a manner which prevents district identification. In order to ensure district anonymity, it was necessary to use coding which was less specific than that normally used with the Agency's Analyze procedure. Although the use of these codes limits the clarity of the demographic data, the purpose of including the codes was not to focus on demographic factors but to ensure that all types of districts were represented in the sample. The four-digit codes were constructed as follows:

Super Region Groupings

1 - ESC regions 1-3, 20
2 - ESC regions 4-7
3 - ESC regions 8-11
4 - ESC regions 12-15
5 - ESC regions 16-19

ADA Groupings

1 - More than 25,000 ADA
2 - 10,000 - 24,999 ADA
3 - 5,000 - 9,000 ADA
4 - 3,000 - 4,999 ADA
5 - 1,000 - 2,999 ADA
6 - Less than 1,000 ADA

Percent Minority Groupings

1 - Less than 13.5 percent
2 - 13.5 - 37.4 percent
3 - Greater than 37.4 percent

Wealth Groupings

1 - Less than $135,042 per student
2 - $135,042 - $246,052 per student
3 - Greater than $246,052 per student

# APPENDIX B

## DATA COLLECTION INSTRUMENTS

| Data Collection Instrument | Page |
|---|---|
| Campuses in Districts with more than 1,000 ADA | B-1 |
| Campuses in Districts with less than 1,000 ADA | B-7 |
| Individual Student Questionnaires | B-12 |
| Definitions | B-24 |

# Compensatory Education
# 1986-87 Evaluation

| | |
|---|---|
| TO: | Campus Contact Person |
| SUBJECT: | Instructions for Completion of Evaluation Questionnaire |
| DUE DATE: | As Instructed by District Contact |
| QUESTIONS: | District Contact Person or<br>TEA, Division of Program Evaluation (512) 463-9524 |

As required by Texas Education Code, Section 21.557, each campus is to fill out the attached data collection instrument. Compensatory education is defined as instruction provided to educational disadvantaged students who are not performing satisfactorily on academic courses, basic skills assessment instruments, and achievement tests. Compensatory programs are defined for this study as not including bilingual, ESL, or special education programs but do include all basic skills instructional programs regardless of funding source. STUDENTS PARTICIPATING IN BOTH A COMPENSATORY AND A SPECIAL LANGUAGE PROGRAM ARE TO BE INCLUDED IN THIS EVALUATION. Further definitions are included to help clarify the requested information. Although not all of the information may be readily available, you are requested to make the best possible effort to complete the instrument. After you have completed both Part Ia and Part Ib, return the instrument to your district contact person. Your campus may or may not be involved in Part II (Student Profiles) of the data collection. Note in the campus descriptor that the grade levels offered may not exactly correspond to those on your campus. Simply pick the closest approximation. For example, a K-8 campus would indicate K-6.

—REPORT ONLY FOR YOUR CAMPUS—

District and Campus Name _____

County-District-Campus Number _____

# 1986-87 Statewide Evaluation of Compensatory Education

## Part Ia. Program Description

Please enter the two digit code number that best represents the grade span offered at your campus. _____

K-6 = 21 7-8 = 22 9-12 = 23

For this report, compensatory refers to basic skill instruction programs **other than** bilingual, ESL, or special education. These programs are included in another data collection instrument. Compensatory education is defined as instruction provided to educational disadvantaged students who are not performing satisfactorily on academic courses, basic skills assessment instruments, and achievement tests. Programs may be funded by either federal, state, or local funds.

A. **Years of Implementation:** Please indicate the NUMBER OF YEARS your school has implemented the specified program. Enter the number of years which corresponds to the largest amount of time for any grade level. Include the 1986-87 school year.

Chapter 1 _____ yrs.

Other Comp. _____ yrs.

B. **Instructor Description:** Provide the number of TEACHERS AND AIDES that are currently providing compensatory instruction by the number of years of experience (include current school year). If this information is not available, enter the total number.

| Number of Years Teaching in Compensatory Program | Number of Teachers | Number of Aides |
|---|---|---|
| 1 year | _____ | _____ |
| 2-3 years | _____ | _____ |
| 4-5 years | _____ | _____ |
| 6 or more years | _____ | _____ |
| **Total** | _____ | _____ |

C. 1. Number of Total Full Time Equivalent personnel (including aides) giving **direct instructional services** including tutorials. _____

2. Number of Total Full Time Equivalent personnel giving **indirect instructional service** (i.e. counselors, librarians). _____

3. Number of Total Full Time Equivalent personnel involved in **administration** only including supervisors. _____

D. **Approximately** what percent of the students in this program also receive more than one type of supplementary instruction (i.e., Chapter 1 regular, migrant, bilingual, ESL or state compensatory education—dual service). _____ %

E. **Approximately** what percent of the students in the compensatory programs are eligible for free/reduced price lunch. _____ %

F. **Please check** the instructional approaches and the instructional arrangements employed at your campus. Please do not include any that are utilized with less than 10 percent of your students.

**Instructional Approaches and Arrangements**

| Check as Many as Apply | ✓ | Check as Many as Apply | ✓ |
|---|---|---|---|
| Mastery Learning | | Send In | |
| Drill and Practice | | Pull Out | |
| Reduced Instructor/Student Ratios | | Computer-oriented Instruction (in classroom) | |
| Self-paced Instruction | | Lab Setting with Computers | |
| Study Skills | | Lab Setting without Computers | |
| Test-taking Skills | | Extended Day-Before/After School During Regular School Year | |
| Peer/Cross-age Tutoring | | Tutorial Programs During School Day | |
| Team Teaching | | Individualized Progress | |
| Grouping Heterogenously | | Extended School Year/Summer School | |
| Grouping Homogeneously | | Alternative Education Programs | |
| Additional Time on Task | | Other Approaches | |
| Aide in Class | | Other Arrangements | |
| Basic Skills Instruction (full-day) | | | |

G. **For All Campuses**

1. TOTAL number of students receiving direct compensatory instructional service. Count students only once even if enrolled in more than one course. UNDUPLICATED _____

2. Number of students receiving indirect instructional services or benefiting indirectly from services funded by compensatory funding. (This may include all students on the campus.) _____

3. Number of students that will attend summer school for compensatory or remedial instruction. _____

H. **Campuses With Grades K-6 (K-5)**

THE FOLLOWING COUNTS MAY BE DUPLICATED
(Students may appear in more than one category.)

1. Number of students receiving Chapter 1 Regular services. _____

2. Number of students receiving Chapter 1 Migrant services. _____

3. Number of students receiving services in a program structured similar to Chapter 1 but funded by state or local money. _____

I. **Campuses With Grades 7-8 (Include 6 if Middle School)**

1. Number of students in 7th grade reading improvement. _____

2. Number of students in 8th grade reading improvement. _____

J. **Campuses With Grades 9-12 (10-12)**

1. Number of students enrolled in the following courses:
Correlated Language Arts, Fundamentals of Math, Consumer Math, Pre-Algebra, and Informal Geometry. Count students only once even if enrolled in more than one course. _____

2. Number of students enrolled in non-credit or local credit only remedial courses. _____

# Part Ib. Program Specific
# Performance Information on the Instructional Program for Compensatory Students

QUESTIONS A-D ARE FOR CAMPUSES WITH GRADES K-5.

**A. Students Exiting the Compensatory Instructional Program:**

1. Complete the table below by grade level, indicate the number of students in a compensatory instructional program in the spring of 1987 and who are not scheduled to be enrolled in the program in the fall of 1987. Although exact counts may not be available, please carefully estimate the requested information.

| Categories | Grade Levels K | 1 | 3 | 5 |
|---|---|---|---|---|
| 1. Scheduled to be promoted to next grade level | | | | |
| 2. Retained in present grade level | | | | |
| 3. Placed in next grade level | | | | |

**B. Students Remaining in the Compensatory Instructional Program:**

Complete the table below by indicating the number of students per grade level that will continue in the compensatory program in 1987-88. Although exact counts may not be available, please carefully estimate the requested information.

| Categories | Grade Levels K | 1 | 3 | 5 |
|---|---|---|---|---|
| 1. Promoted to next grade level | | | | |
| 2. Retained in present grade level | | | | |
| 3. Placed in next grade level | | | | |

**C. Promotion/Retention/Placement Rates For All Students:**

What is the overall promotion/retention rate for the grade levels below (include all students including all special programs of any types). Enter the number of students to be:

| Categories | Grade Levels K | 1 | 3 | 5 |
|---|---|---|---|---|
| 1. Promoted to next grade level | | | | |
| 2. Retained in present grade level | | | | |
| 3. Placed in next grade level | | | | |

D. **Campuses With Grades 7-8**

1. Number of students in 8th grade reading improvement who were also in 7th grade reading improvement. _____

2. Number of students in 8th grade reading improvement who are scheduled for 9th grade correlated language arts. _____

3. Number of 1986-87 7th grade students scheduled to be:

| | Promoted | Retained | Placed |
|---|---|---|---|
| Students Enrolled in 7th Grade Reading Improvement | | | |
| All Other Students | | | |

E. **Campuses With Grades 9-12 (Or 10-12)**

Number of students currently (1986-87) in 9th grade correlated language arts (CLA) that are scheduled to be (1987-88) placed in:

1. 9th grade CLA (again) _____
2. 9th grade English _____
3. 10th grade CLA _____
4. 10th grade English _____
5. ESL or ESOL _____
6. Other _____

# Compensatory Education
# 1986-87 Evaluation

TO: Campus Contact Person

SUBJECT: Instructions for Completion of Evaluation Questionnaire

DUE DATE: As Instructed by District Contact

QUESTIONS: District Contact Person or
TEA, Division of Program Evaluation (512) 463-9524

As required by Texas Education Code, Section 21.557, each campus is to fill out the attached data collection instrument. Compensatory education is defined as instruction provided to educational disadvantaged students who are not performing satisfactorily on academic courses, basic skills assessment instruments, and achievement tests. Compensatory programs are defined for this study as not including bilingual, ESL, or special education programs but do include all basic skills instructional programs regardless of funding source. STUDENTS PARTICIPATING IN BOTH A COMPENSATORY AND A SPECIAL LANGUAGE PROGRAM ARE TO BE INCLUDED IN THIS EVALUATION. Further definitions are included to help clarify the requested information. Although not all of the information may be readily available, you are requested to make the best possible effort to complete the instrument. After you have completed both Part Ia and Part Ib, return the instrument to your district contact person. Your campus may or may not be involved in Part II (Student Profiles) of the data collection. Note in the campus descriptor that the grade levels offered may not exactly correspond to those on your campus. Simply pick the closest approximation. For example, a K-8 campus would indicate K-6.

—REPORT ONLY FOR YOUR CAMPUS—

District and Campus Name _____

County-District-Campus Number ___ ___ ___ - ___ ___ ___ - ___ ___ ___

# 1986-87 Statewide Evaluation of Compensatory Education

## Part Ia. Program Description

Please enter the two digit code number that best represents the grade span offered at your campus. _____

K-6 = 21 7-8 = 22 9-12 = 23

For this report, compensatory refers to basic skill instruction programs **other than** bilingual, ESL, or special education. These programs are included in another data collection instrument. Compensatory education is defined as instruction provided to educational disadvantaged students who are not performing satisfactorily on academic courses, basic skills assessment instruments, and achievement tests. Programs may be funded by either federal, state, or local funds.

A. **Years of Implementation:** Please indicate the NUMBER OF YEARS your school has implemented the specified program. Enter the number of years which corresponds to the largest amount of time for any grade level. Include the 1986-87 school year.

Chapter 1 _____ yrs

Other Comp _____ yrs

B. **Instructor Description:** Provide the number of TEACHERS AND AIDES that are currently providing compensatory instruction.

| | **Number of Teachers** | **Number of Aides** |
|---|---|---|
| | _____ | _____ |

C. **Approximately** what percent of the students in this program also receive more than one type of supplementary instruction (i.e., Chapter 1 regular, migrant, bilingual, ESL or state compensatory education—dual service). _____ %

D. **Approximately** what percent of the students in the compensatory programs are eligible for free/reduced price lunch. _____ %

E. **FOR ALL CAMPUSES**

1. TOTAL number of students receiving direct compensatory instructional service. Count students only once even if enrolled in more than one course. UNDUPLICATED _____

2. Number of students receiving indirect instructional services or benefiting indirectly from services funded by compensatory funding. (This may include all students on the campus.) _____

3. Number of students that will attend summer school for compensatory or remedial instruction. _____

F. **CAMPUSES WITH GRADES 7-8**

1. Number of students in 7th grade reading improvement. _____

2. Number of students in 8th grade reading improvement. _____

G. **CAMPUSES WITH GRADES 9-12 (10-12)**

1. Number of students enrolled in the following courses: Correlated Language Arts, Fundamentals of Math, Consumer Math, Pre-Algebra, and Informal Geometry. Count students only once even if enrolled in more than one course. _____

2. Number of students enrolled in non-credit or local credit only remedial courses. _____

## Part Ib. Program Specific
### Performance Information on the Instructional Program for Compensatory Students

QUESTIONS A-C ARE FOR CAMPUSES WITH GRADES K-5.

**A. Students Receiving the Compensatory Instruction in 1986-87:**

1. Complete the table below by grade level, indicate the number of students in a compensatory instructional program in the spring of 1987 and their scheduled placement for 1987-88. Although exact counts may not be available, please carefully estimate the requested information.

| Categories | Grade Levels K | 1 | 3 | 5 |
|---|---|---|---|---|
| 1. Scheduled to be promoted to next grade level | | | | |
| 2. Retained in present grade level | | | | |
| 3. Placed in next grade level | | | | |

**B. Promotion/Retention/Placement Rates For All Students:**

What is the overall promotion/retention rate for the grade levels below (include all students including all special programs of any types). Enter the number of students to be:

| Categories | Grade Levels K | 1 | 3 | 5 |
|---|---|---|---|---|
| 1. Promoted to next grade level | | | | |
| 2. Retained in present grade level | | | | |
| 3. Placed in next grade level | | | | |

## C. CAMPUSES WITH GRADES 7-8

1. Number of students in 8th grade reading improvement who were also in 7th grade reading improvement. _____

2. Number of students in 8th grade reading improvement who are scheduled for 9th grade correlated language arts. _____

## D. CAMPUSES WITH GRADES 9-12 (OR 10-12)

Number of students currently (1986-87) in 9th grade correlated language arts (CLA) that are scheduled to be (1987-88) placed in:

1. 9th grade CLA (again) _____
2. 9th grade English _____
3. 10th grade CLA _____
4. 10th grade English _____
5. ESL or ESOL _____
6. Other _____

1986-87 EVALUATION OF COMPENSATORY EDUCATION PROGRAMS

Part II

Compensatory Student Specific Information

PART II INSTRUCTIONS

The second section of the evaluation of compensatory programs is the collection of student profiles. Since programs can differ not only between campuses, but also within campuses, it is somewhat difficult to determine what constitutes a successful program based on overall or averaged outcomes. An alternative approach is to select successful students and then determine what factors contribute to their success. This approach requires a more in-depth examination of the students and their educational environment. While each district is to fill out these student profiles, only a few students are being requested from each district to limit the data burden. The attached computer printout lists the numbers, grade levels, and programs for students for which information is requested. In most cases, the student's regular teacher will fill out the majority of the questionnaire. If the student is served in an excess cost type model, Reading Improvement, or CLA, then the compensatory teacher is the regular teacher.

For this approach to yield useful information several conditions must be met. These are as follows:

- Confidentiality Of Response. Each scan sheet is to have a demographic code (found on the computer printout) entered. This demographic code must be entered in the IDENTIFICATION NUMBER section on page 2 of each scan sheet. This four digit code must be entered in the left-most four columns of this section. This code does not uniquely identify any one district. The information on the scan sheet cannot be tracked to any teacher, campus or district. The TEA respectfully requests that you do not modify any responses on the scan sheets in order to "hide" the district's identity.

- Honesty Of Response. By ensuring anonymity, it is hoped that respondents will answer in an as honest a manner as possible.

- Completeness Of Response. Each district is responsible for the selection of students. Please select students for which you have the most complete information.

- Representativeness Of Response. Please allow the most knowledgeable person (usually the teacher) to fill out the information requested. When it is directed to find a "successful" or "non-successful" student, please select a student who

is either in the top 10 percent (or bottom 10 percent) of students in that category. It is not necessary to find the worst or the best student.

USE OF DATA

As noted, these data will not be used to evaluate any teacher, campus, or district. Rather, with the information provided, factors which are associated with successful and non-successful students can be determined using the data base created in this study. Given accurate initial information, computer analyses can determine factors that are critical to a student's success or failure. Technical assistance documents can then be created and disseminated to all districts. This in turn will lead to better service for compensatory students.

STUDENT SELECTION

This study concentrates on remediation of reading/language arts. Please do not select students who are only receiving mathematics compensatory services (students receiving compensatory in both are acceptable). Critical to the success of this evaluation is the selection of "good" examples of successful and non-successful students. It is realized that just as there are many different instructional approaches, there are many outcomes that may be evidenced from these programs. For this study, three different definitions will be used. One (or more) students will be selected according to each definition who is successful and one (or more) who is not. The numbers, grade levels, and programs for students to be selected are listed on the attached computer printout. It is understood that not all districts will have a student in each category. Please find a student in as many requested categories as possible. Remember no district will or can be identified. Your honest cooperation is essential. The attached computer printout also includes the district's 4 digit demographic code which will be entered for each student under "IDENTIFICATION NUMBER". Below you will find definitions for the students to be selected. The code numbers refer to the type of student to be selected and must be entered on the scan sheet under "SPECIAL CODES" on side two of the scan sheet. Do not use columns 4, 5, and 6. Even though one student could fit in more than one of the categories, do not fill out more than one sheet on the same student.

NOTE: There is a space on the instructions for the student questionnaire for a student's name. You may enter a name to aid in the information gathering process since the instructions will not be returned to the Texas Education Agency. Do not include any identified special education students nor any students who receive only bilingual or ESL instruction.

SUCCESS CODES 211 and 221

From the attached computer printout find the number of students to be selected who fit the descriptions under Success Codes 211 and 221. These students are to be selected as follows:

CODE 211: This is a student in a compensatory program in 1986-87. This student is considered a success of the program by your own district's standards. The student may or may not have been promoted, passed TEAMS, or exited the program. Simply select a successful example by your own district's standards.

CODE 221: This is a student in a compensatory program in 1986-87. This student is not considered a success of the program by district definition. The student may or may not have been promoted, passed TEAMS, or exited the program Simply select a non-successful example by your own district's standards.

SUCCESS CODES 212 and 222

From the attached computer printout find the number of students to be selected as success codes 212 and 222. These students are selected as follows:

CODE 212: This is a student who was in a compensatory program in 1985-86, but was not in 1986-87. This student was exited from the program by exceeding the required performance levels. This student was not in another compensatory program in 1986-87. This student did pass both reading and mathematics sections of the 1987 TEAMS. [SPECIAL NOTE: If your district is to select more than one student per category, please try to select a student who will and one who will not be promoted in 1986-87.]

CODE 222: This is a student who was in a compensatory program in 1985-86, but was not in 1986-87. This student was exited from the program by exceeding the required performance levels. This student was not in another compensatory program in 1986-87. This student did NOT pass both reading and mathematics sections of the 1987 TEAMS. [SPECIAL NOTE: If your district is to select more than one student per category, please try to select a student who will and one who will not be promoted in 1986-87.]

SUCCESS CODES 213 AND 223

From the attached computer printout find the number of students to be selected as success codes 213 and 223. These students are selected as follows:

CODE 213: This is a student who was in a compensatory program in 1985-86 and continued in the program in 1986-87. This student may or may not have passed TEAMS. This student, however, WILL BE promoted (not placed) to the next grade level for 1987-88. [SPECIAL NOTE: If your district is to select more than one student per category, please try to select a student who has and one who has not passed TEAMS in 1986-87.]

CODE 223: This is a student who was in a compensatory program in 1985-86 and continued in the program in 1986-87. This student may or may not have passed TEAMS. This student, however, WILL NOT BE promoted (but may be placed in) to the next grade level for 1987-88. [SPECIAL NOTE: If your district is to select more than one student per category, please try to select a student who has and one who has not passed TEAMS in 1986-87.]

SELECTION OF CAMPUSES

If you have more than one campus, you are encouraged to distribute these forms over several campuses in order to reduce the burden at any one campus. Remember, no campus or district can be identified.

Question Part Ia.C.3 asks for the FTE administrators on the campus. If additional administrators are located in central office administration, indicate administrator FTEs in Part III.

The attached post card must be mailed when all student questionnaires of Part II are completed and mailed to the Division of Program Evaluation. Please do not mail the questionnaires and post card together (this is requested to ensure that student questionnaires are not identified with any school district).

QUESTIONS: Call the Division of Program Evaluation at (512)463-9524.

T E X A S  E D U C A T I O N  A G E N C Y

COMPENSATORY EDUCATION STUDY 1987

SELECTION OF STUDENTS TO PARTICIPATE IN THE "CASE STUDY" FOR PART II SHOULD INCLUDE STUDENTS FROM THE GROUPS BELOW. NAME SPACES ARE FOR DISTRICT USE ONLY. NO NAMES WILL BE USED IN THE STUDY.

-------- DISTRICT=  ISD  CD#=  DEMOGRAPHIC CODE=4611 --------

| | STUDENT NAMES (OPTIONAL) | CODE NUMBER | GRADE LEVEL | CHAPTER 1 STATUS |
|---|---|---|---|---|
| 1. | _____ | 221 | 3 | CHAPTER 1 |
| 2. | _____ | 225 | 3 | CHAPTER 1 |
| 3. | _____ | 223 | 3 | NOT CHAPTER 1 |
| 4. | _____ | 221 | 5 | CHAPTER 1 |
| 5. | _____ | 211 | 5 | NOT CHAPTER 1 |
| 6. | _____ | 227 | 7 | NOT CHAPTER 1 |

—DO NOT RETURN THESE INSTRUCTIONS—

## II. Compensatory Student Specific Information

The Texas Education Agency is conducting an evaluation of compensatory education programs and would like information on specific students for a general "student profile study." ALL RESPONSES MUST BE PLACED ON THE GENERAL PURPOSE NCS ANSWER SHEET. All answers will be confidential, so please do not put the student's name on the form. Additionally, no campus or district specific identifiers are used. Only general demographic codes are entered so that the data may be appropriately analyzed. No teacher campus, or district can be identified for **any** purpose. When you have completed the questionnaire for each student, please return only the NCS answer sheet. DO NOT FOLD OR STAPLE THE ANSWER SHEET IN ANY WAY.

**BE SURE TO USE A NUMBER TWO PENCIL**

---

START WITH SIDE TWO for _____ .
(Student Name - local use only)

---

**FILL IN THE CIRCLES THAT CORRESPOND TO THE INFORMATION REQUESTED BELOW**

A. DO NOT ENTER ANY NAME INFORMATION.

B. Darken the circle that corresponds to the student's sex.

C. Under the heading "BIRTH DATE" darken the year and month that corresponds to the student's birth date. For example, a student born in March 1979 would be coded 7903.

D. Under the heading "SPECIAL CODES" enter "2" in the **first column.**

The **second column** will either be entered as "1"-success or a "2"-nonsuccess depending on the student selected. The district contact person has the instructions on selecting students and will provide you with this information.

The **third column** will either be entered as a "1"-district defined, "2"-after program, or a "3"-TEAMS defined success in district. Again, the district contact will provide this information.

There should be a 3 digit code for each student under the heading "SPECIAL CODES." Do **not** use columns 4, 5, and 6.

E. Under the heading "IDENTIFICATION NUMBER," enter the special demographic code for your district. Start on the left side of the box. This number is also available from your district contact person.

F. Under the heading "GRADE OR EDUCATION" darken the number that corresponds to the student's current grade level.

---

TURN TO SIDE ONE OF THE ANSWER SHEET

---

DARKEN THE APPROPRIATE CIRCLE FOR QUESTIONS 1-57

IF INFORMATION IS UNAVAILABLE OR NOT APPLICABLE—LEAVE QUESTION BLANK
DO NOT DARKEN MORE THAN ONE CIRCLE FOR ANY QUESTION

UNLESS OTHERWISE DIRECTED, QUESTIONS REFER TO AND INCLUDE SCHOOL YEAR 1986-87

## Student Specific

1. In school year 1986-87, this student was enrolled in a program that is classified as:

   A. Bilingual
   B. English as a second language
   C. No special language instructional program

2. Was this student in another compensatory/remedial program in 1986-87 (for example, Chapter 1 and SCE)?

   A. Yes
   B. No

3. How many years has this student been in the district?

   A. Less than 1 year (enrolled this year after January 1987)
   B. 1 year (enrolled this year before January 1987)
   C. 2-3 years
   D. 4-5 years
   E. 6 or more years

4. If the student is an immigrant, did the student receive schooling in the native country?

   A. Yes
   B. No
   C. Unknown

5. How many different schools (campuses or districts) has this student attended in the last five years? Do not consider normal grade progression from one campus to another as a change in schools, i.e., junior high to high school.

   A. 1 school
   B. 2 schools
   C. 3-5 schools
   D. 6-7 schools
   E. 8-10 schools

6. Has this student been classified as migrant in the last five years?

   A. Yes
   B. No

7. Has the student been eligible for free/reduced price lunch in the last five years?

   A. Yes
   B. No

8. How many times has this student been retained during his academic career?

   A. 0 times
   B. 1 time
   C. 2 times
   D. 3 times
   E. 4 or more times

9. How many years has this student participated in compensatory program(s) (e.g., Chapter 1, State Compensatory Education, etc.)?

   A. 1 year or less
   B. 2 years
   C. 3 years
   D. 4 years
   E. 5 or more years

10. If applicable, how many times has this student reentered a compensatory program (e.g., Chapter 1, State Compensatory Education, etc.) after leaving the program?

   A. Not Applicable
   B. 1 time
   C. 2 times
   D. 3 times
   E. 4 or more times

11. If the student has exited or is to be exited from a special language program, what category best represents this student's LEP status when exiting the bilingual/ESL program?

   A. Student scored between the 23rd and 40th percentile (%ile) on both the reading and language arts subtests of a standardized English achievement test and the Language Proficiency Assessment Committee (LPAC) determined exiting of the bilingual/ESL program.

   B. Student scored at or above the 40th percentile on both the reading and language arts subtests of a standardized English achievement test.

   C. Withdrew from the bilingual/ESL program due to parents request.

   D. Student scored below the 23rd percentile but mastered the essential elements in **English.**

   E. Student demonstrated proficiency in the areas of listening, speaking, reading and writing of the English language and met the district's promotion standards applicable to English proficient students. (Referring only to students in grade 1.)

12. If this student's native language is Spanish and your school district administered a Spanish achievement test in **1986-87,** in what percentile range did this student score for the Total Reading (or equivalent) subtest?

   A. Greater than the 80%ile
   B. 60%ile - 79%ile
   C. 40%ile - 59%ile
   D. 20%ile - 39%ile
   E. Less than 20%ile

13. If your school district administered an English achievement test in **1986-87,** what percentile range did this student score for the Total Reading (or equivalent) subtest?

   A. Greater than the 80%ile
   B. 60%ile - 79%ile
   C. 40%ile - 59%ile
   D. 20%ile - 39%ile
   E. Less than the 20%ile

14. If your school district administered a English achievement test in **1985-86,** in what percentile range did this student score for the Total Reading (or equivalent) subtest?

   A. Greater than the 80%ile
   B. 60%ile - 79%ile
   C. 40%ile - 59%ile
   D. 20%ile - 39%ile
   E. Less than 20%ile

15. Has this student ever been exempt from taking the English TEAMS test?

A. Yes
B. No

16. Please report the percentage of objectives passed for the 1987 TEAMS Reading subtest.

A. Greater than 80%
B. 60-79%
C. 40-59%
D. 20-39%
E. Less than 20%

17. Please report the percentage of objectives passed for the 1987 TEAMS Writing subtest.

A. Greater than 80%
B. 60-79%
C. 40-59%
D. 20-39%
E. Less than 20%

18. Please report the percentage of objectives passed for the 1987 TEAMS Mathematics subtest.

A. Greater than 80%
B. 60-79%
C. 40-59%
D. 20-39%
E. Less than 20%

19. Please report the percentage of objectives passed for the 1985 Texas Assessment of Basic Skills Reading subtest.

A. Greater than 80%
B. 60-79%
C. 40-59%
D. 20-39%
E. Less than 20%

20. Please report the percentage of objectives passed for the 1985 Texas Assessment of Basic Skills Writing subtest.

A. Greater than 80%
B. 60-79%
C. 40-59%
D. 20-39%
E. Less than 20%

21. Please report the percentage of objectives passed for the 1985 Texas Assessment of Basic Skills Mathematics subtest.

A. Greater than 80%
B. 60-79%
C. 40-59%
D. 20-39%
E. Less than 20%

22. Is this student considered on grade level, below grade level, or above grade level in English reading?

A. On grade level
B. Below grade level
C. Above grade level

23. Has the student mastered the district's **Language Arts** essential elements on grade level?

A. Yes
B. No

24. Has the student mastered the district's **Mathematics** essential elements on grade level?

A. Yes
B. No

25. Has the student mastered the district's **Science** essential elements on grade level?

A. Yes
B. No

26. Has the student mastered the district's **Social Studies** essential elements on grade level?

A. Yes
B. No

27. For school year 1987-88 is the student scheduled to be:

A. Promoted
B. Retained
C. Placed (alternative to social promotion)

28. Is this student utilized by his teacher to tutor other students in his/her classroom?

A. Yes
B. No

29. For the 1986-87 school year, what was the number of days this student missed (excused and unexcused)?

A. Not absent
B. 1-5 days
C. 6-10 days
D. 11-20 days
E. 21 or more days

30. Does this student's file contain any indication of serious behavior problems?

A. Yes
B. No

31. How likely do you think it is that this student will drop out of school without continued support from some form of remedial/compensatory program **throughout** school?

A. Very unlikely to need continued help
B. Help only needed for 1-2 more years
C. Only occasional tutorial or other help
D. Will need significant intervention
E. Will drop out in any case

32. How many organized extracurricular activities does this student participate in during the 1986-87 school year?

A. 0 activities
B. 1 activity
C. 2 activities
D. 3 activities
E. 4 or more activities

## Program

33. How many reduced or modified content academic classes (periods, subjects) does the student attend each day?

    A. 1 class
    B. 2 classes
    C. 3 classes
    D. 4 classes
    E. 5 or more classes

34. If applicable, how many classes (periods, subjects) does the student attend each day where the child's native language is used?

    A. 1 class
    B. 2 classes
    C. 3 classes
    D. 4 classes
    E. 5 or more classes

35. On average, how large are the student's classes for compensatory instruction?

    A. Less than 10 students
    B. 11-18 students
    C. 19-22 students
    D. 23-30 students
    E. Greater than 30 students

36. In which subject areas does the student receive compensatory instruction?

    A. Reading
    B. Mathematics
    C. Both

37. Is the compensatory program an "excess cost" program?

    A. Yes
    B. No

38. On average, how large are the student's classes for regular classes?

    A. Less than 10 students
    B. 11-18 students
    C. 19-22 students
    D. 23-30 students
    E. Greater than 30 students

**THE INSTRUCTIONAL PROGRAM FOR THIS CHILD INCLUDES:**

39. All essential elements covered at same depth as for regular students.

    A. Yes
    B. No

40. All essential elements covered in less depth as for regular students.

    A. Yes
    B. No

41. Fewer essential elements covered than for regular students.

    A. Yes
    B. No

42. Mastery learning.

    A. Yes
    B. No

43. Test taking skills.

    A. Yes
    B. No

44. Additional time on task.

    A. Yes
    B. No

45. Computerized instruction.

    A. Yes
    B. No

46. Tutoring within the school day.

    A. Yes
    B. No

47. Tutoring before/after the school day.

    A. Yes
    B. No

48. Grouping by ability.

    A. Yes
    B. No

## Teachers

49. Is a teacher aide used in the compensatory classroom?

    A. Yes
    B. No

50. Is a teacher aide used in the regular classroom?

A. Yes
B. No

51. How often would you say the coordination (meetings, conferences, overall instructional objectives) between the compensatory and regular program teacher occur?

A. Non-existent
B. Rarely
C. Monthly
D. Weekly
E. Daily

52. How many overall years of teaching does the student's compensatory teacher have?

A. 1 year
B. 2-3 years
C. 4-5 years
D. 6-10 years
E. 11 or more years

53. How many years of teaching experience in a compensatory program does this student's current teacher have? (Include teaching experience for 1986-87.)

A. 1 year
B. 2-3 years
C. 4-5 years
D. 6-10 years
E. 11 or more years

## Parents

54. Does the student's parent(s) (guardian) participate in PTA/PTO organizations?

A. Yes
B. No
C. Don't know

55. Does the student's parent(s) (guardian) participate in classroom activities (non-parent aides, etc.)?

A. Yes
B. No
C. Don't know

56. How many conferences (visits, telephone, etc.) have you had with the parent(s) (guardian) during 1986-87 school year?

A. 1 conference
B. 2-3 conferences
C. 4-5 conferences
D. 6-7 conferences
E. 8 or more conferences

57. Does the student's parent(s) (guardian) participate in Adult Education classwork (such as an English language class)?

A. Yes
B. No
C. Don't know

TEXAS EDUCATION AGENCY

# Definitions for Compensatory Education and Bilingual/ESL Reports

**Additional Time on Task.** Providing students additional direct instructional time focused on learning specific skills and concepts to meet an instructional objective.

**Aide in Same Class (full-day).** Classroom setting which uses a teacher aide in the same class for the total school day to assist with instruction.

**Alternative Education Programs.** School programs to serve special student populations, defined as students who are not able to function in the structure of a regular school setting, are potential dropouts, or have discipline problems. Alternative programs may be located within a school or on a separate campus; operate before, during, or after school hours; modify clock hour requirements for courses; modify the number of units a student takes; and modify methods of instruction, pacing, and materials.

**Basic Skills Instruction (full-day).** Alternative instructional programs for students who may not be successful in the traditional program at the next grade level. Instruction focuses on reading, writing, and mathematics skills and concepts for the entire school day. Social studies, science, health, and other content materials are used to teach, remediate, and strengthen basic skills and concepts. This is one alternative education program model.

**Bilingual (full-day).** A full-time program of dual-language instruction that provides for learning basic skills in the primary language of limited English proficient students and that also provides for carefully structured and sequenced mastery of English language skills. These required programs include six components addressing language arts, math, science, and social studies in two languages in such a manner as to instill in the student confidence, self-assurance, and a positive identity with his or her cultural heritage.

**Bilingual Education Program.** A program of dual-language instruction that provides for learning basic skills in the primary language of LEP students and also for mastery of English language skills.

**Compensatory Classes.** Instruction provided to students performing below a standard set by the district or state as satisfactory in academic courses. Classes may include Correlated Language Arts, Reading Improvement (7th and 8th grade), Fundamentals of Mathematics, Consumer Mathematics, Pre-Algebra, Informal Geometry, and other basic skills instruction (i.e., Chapter 1, SCE). Sources of funding may include federal, state, or local.

**Compensatory Education.** Instruction provided to educationally or economically disadvantaged students who are performing below a standard set by the district or state on standardized achievement tests, in academic courses, or on basic skills assessment instruments (e.g., TEAMS). The instruction may be primary or supplemental.

**Computer-Oriented Instruction (in classroom).** Basic skills instruction provided by a certified teacher and reinforced through the use of computer-based instruction in the classroom.

**Correlated Language Arts I-IV (CLA).** A sequence of courses in English designed for students who are generally limited in language arts abilities and who cannot demonstrate skills that promise success in the regular English sequence. Placement into CLA is made according to district policy.

**Departmentalized.** Instruction provided by subject area. Students are taught by content area teachers.

**Direct Compensatory Instructional Service.** Instruction that is delivered to students performing below set standards by a teacher, aide, tutor, in a computer lab, or in a formal classroom on a regularly scheduled basis. As defined, this includes only tutorials that a student is **required** to attend. This concept implies that there is direct interaction between an adult and the student.

**Drill and Practice.** Activities that are repetitive and provide opportunities for students to practice the skill or concept that has been taught. Drill and practice activities may be conducted by certified teachers, teacher aides, tutors, or through computer-based instruction.

**English as a Second Language (ESL).** Programs which use second language learning and teaching methodologies in the teaching of English to students whose first language is other than English.

**ESL for Content Instruction.** Utilization of second language methods in the teaching of subject matter other than language arts.

**ESL for Language Arts Instruction.** Utilization of second language learning/teaching methodology in the teaching of English language arts skills and concepts.

**Extended Day—During Regular School Year.** Extended day instruction may occur before or after the regular school day or on Saturday or other days when the regular school program is not in operation.

**Extended School Year—Summer School.** Instruction that is provided between the end of the last day of the regular school term and before the first day of instruction in the fall. Its purpose is usually to teach and remediate skills or concepts that students did not master during the regular school year.

**Grouping Heterogeneously.** Each classroom is composed of students who are functioning at various levels of academic achievement. Ability levels of the students vary.

**Grouping Heterogeneously for Language Arts.** Each classroom is composed of students who are functioning at various levels of academic achievement in the students' primary language or English for listening, speaking, reading, writing, or language concepts or skills. Ability levels of the students vary.

**Grouping Homogeneously.** Each classroom is composed of students who are functioning at similar levels of achievement in a subject area. Ability levels of the students are similar.

**Grouping Homogeneously for Language Arts.** Each classroom is composed of students who are functioning at similar levels of achievement in the students' primary language or English for listening, speaking, reading, writing, or language concepts or skills. Ability levels of the students are similar.

**Instructional Approaches.** Refers to how instruction is delivered to impart information, i.e., teaching methodologies, strategies, and techniques.

**Instructional Arrangements.** Refers to the physical delivery system in terms of how students are placed in classrooms and grouped for instruction (e.g., send-in, pull-out, lab setting, tutorials, etc).

**Lab Setting With Computers.** Students are pulled from their regular class for instruction and/or reinforcement of skills or concepts introduced in the classroom. This instruction is delivered through the use of computers.

**Lab Setting Without Computers.** Students are pulled from their regular class for instruction and/or reinforcement of skills or concepts. Instruction is delivered by teacher or aide.

**Limited English Proficient (LEP).** Students of limited English proficiency are those students having a language other than English in the home and who have difficulty progressing in all English instructional settings.

**Mastery Learning.** Requires that each student master a skill or task before proceeding to the next one.

**Peer or Cross-Age Tutoring.** Under the supervision of a teacher, students help one or more students master a skill or concept.

**Placed.** The student is placed into the next grade level as an alternative to being retained.

**Primary Language for Clarification.** Utilization of the student's primary language to help clarify language concept skills that a student has difficulty understanding.

**Primary Language for Content Instruction.** Utilization of a student's primary language as a medium for instruction in mathematics, science, or social studies.

**Primary Language for Language Arts Instruction.** The second component in required bilingual education programs designed to provide instruction in comprehension, speaking, reading, and writing in the student's primary language.

**Promoted.** The student has met all required criteria and is advanced to the next grade level.

**Reading Improvement.** A year long course designed for students in grades seven and eight. It is mandatory for students who score below the 40th percentile or who are one year or more below grade equivalence on a standardized achievement test. LEP students are provided one period of ESL and may also take reading improvement.

**Reduced Instructor to Student Ratio.** The ratio of instructors to students is lower than the average size of a regular class on a given campus.

**Resource Arrangement (pull-out).** An instructional setting in which students leave their classroom and move to another setting where a teacher or aide provides instruction in the appropriate area.

**Retained.** The student remains in the same grade level for a second year.

**Self-Contained.** A classroom setting in which students are taught all subjects by the same teacher.

**Self-Paced Instruction, Continuous Progress, or Individualized Progress.** Students progress at a rate commensurate with their achievement or abilities.

**Send-In.** A teacher or aide enters the regular classroom to provide special instructional services to one or more students who have a designated need for special help.

**Study Skills.** Instruction is provided to students on appropriate ways to approach the acquisition of content or skills.

**Team-Teaching.** A teacher shares responsibility for the instruction of a set of students, usually in two or three classrooms.

**Test-Taking Skills.** Instruction intended to expose students to test formats and strategies to maximize performance on tests.

**Transition Programs for Primary Grades.** Alternative instructional programs for students who may not be successful in the traditional program at the next grade level. It implies the use of alternative teaching strategies, curricular materials, and possibly pacing.

**Tutorial Instruction.** Remedial instruction in which students receive help in addition to the regular instructional time in academic areas that need strengthening.

**Tutorial Programs Before or After School.** Tutorial instruction is provided outside of the regular school day.

**Tutorial Programs During School Day.** Tutorial programs which are conducted during the school day but at times or periods when regular instruction is not being conducted, such as advisory periods, study halls, or other unscheduled time.

# APPENDIX C

## EVALUATION REQUIREMENTS CONTAINED IN RULE AND STATUTE

This appendix contains references to portions of the Texas Education Code and the Texas Administrative Code regarding compensatory program evaluation. The statutes and rules presented are those which were in place when the data presented in this report was collected. Repealed items are noted in bold type.

## General Provisions

Texas Education Code §11.63(a)(3)

(a) The State Department of Education shall

(3) seek to assist local school districts in developing effective and improved programs of education through research and experimentation, consultation, conferences, and evaluation...

## Specific Provisions

Texas Education Code §16.152(d)

(d) The Central Education Agency shall evaluate the effectiveness of remedial and support programs provided under Section 21.557 of this code for students at risk of dropping out of school.

Texas Education Code §21.557(d)

(d) Each district shall submit an annual report to the commissioner of education which describes how the instructional services are provided by campus.

Title 19, Texas Administrative Code §89.134(a)(2) **REPEALED APRIL 1988**

(2) An evaluation of all compensatory programs including information required by and submitted to the Texas Education Agency shall be made. The evaluation shall encompass both the education process and the extent of growth and achievement evidenced by pupils.

Title 19, Texas Administrative Code §89.134(b)(6) **REPEALED APRIL 1988**

(6) The evaluation report to the Texas Education Agency shall be submitted on forms developed by TEA to produce consistent statewide data. Variations to this format may be requested if appropriate.

## COMPLIANCE STATEMENT

### TITLE VI, CIVIL RIGHTS ACT OF 1964; THE MODIFIED COURT ORDER, CIVIL ACTION 5281, FEDERAL DISTRICT COURT, EASTERN DISTRICT OF TEXAS, TYLER DIVISION

Reviews of local education agencies pertaining to compliance with Title VI Civil Rights Act of 1964 and with specific requirements of the Modified Court Order, Civil Action No. 5281, Federal District Court, Eastern District of Texas, Tyler Division are conducted periodically by staff representatives of the Texas Education Agency. These reviews cover at least the following policies and practices:

(1) acceptance policies on student transfers from other school districts;

(2) operation of school bus routes or runs on a non-segregated basis;

(3) nondiscrimination in extracurricular activities and the use of school facilities;

(4) nondiscriminatory practices in the hiring, assigning, promoting, paying, demoting, reassigning, or dismissing of faculty and staff members who work with children;

(5) enrollment and assignment of students without discrimination on the basis of race, color, or national origin;

(6) nondiscriminatory practices relating to the use of a student's first language; and

(7) evidence of published procedures for hearing complaints and grievances.

In addition to conducting reviews, the Texas Education Agency staff representatives check complaints of discrimination made by a citizen or citizens residing in a school district where it is alleged discriminatory practices have occurred or are occurring.

Where a violation of Title VI of the Civil Rights Act is found, the findings are reported to the Office for Civil Rights, U.S. Department of Education.

If there is a direct violation of the Court Order in Civil Action No. 5281 that cannot be cleared through negotiation, the sanctions required by the Court Order are applied.

### TITLE VII, CIVIL RIGHTS ACT OF 1964; EXECUTIVE ORDERS 11246 AND 11375; TITLE IX, 1973 EDUCATION AMENDMENTS; REHABILITATION ACT OF 1973 AS AMENDED; 1974 AMENDMENTS TO THE WAGE-HOUR LAW EXPANDING THE AGE DISCRIMINATION IN EMPLOYMENT ACT OF 1967; AND VIETNAM ERA VETERANS READJUSTMENT ASSISTANCE ACT OF 1972 AS AMENDED IN 1974.

It is the policy of the Texas Education Agency to comply fully with the nondiscrimination provisions of all federal and state laws and regulations by assuring that no person shall be excluded from consideration for recruitment, selection, appointment, training, promotion, retention, or any other personnel action, or be denied any benefits or participation in any programs or activities which it operates on the grounds of race, religion, color, national origin, sex, handicap, age, or veteran status (except where age, sex, or handicap constitute a bona fide occupational qualification necessary to proper and efficient administration). The Texas Education Agency makes positive efforts to employ and advance in employment all protected groups.

**Texas Education Agency**
**1701 North Congress Avenue**
**Austin, Texas 78701**

**RE9-726-01**

**September 1988**

100